

Coughs and sneezes spread diseases and depress airlines

THE PAST twelve years since the global financial crisis has seen the longest continuous uptrend in the aviation cycle, with growth rates well above the long term average. This has led some commentators to say that is time for a correction. But as usual a correction to stability in this industry comes from an extraneous external event, be it political, financial or — in this case — viral. Will the effects of the novel coronavirus epidemic that has developed with such rapidity over the Chinese New Year period have a lasting effect on the aviation industry?

Much of the press commentary in the past few weeks has concentrated on comparison with the SARS (Severe Acute Respiratory Syndrome) pandemic in 2003 which had such a deleterious effect on air traffic demand, primarily in Asia.

Then, the focus of infection was Hong Kong. The territory registered 22% of the 8,097 cases of the disease, representing the highest proportion per head of population at 259 per million inhabitants and suffered along with Canada the highest mortality rate at 17% of diagnosed cases. The economic impact was significant: it has been estimated that the Hong Kong economy lost \$4.1bn (or 2.6%) from what it would have been without the outbreak.

China itself had the highest number of diagnosed cases — 5,327 — but this represented an exposure of only 4 per million inhabitants, and of those who were diagnosed with SARS in the country there was a mortality rate of only 7%. It nevertheless had an economic impact estimated as removing \$14bn or 1% from GDP.

Air traffic in 2003 took a significant hit. At the depth of the cri-

sis in May 2003, international traffic in RPK terms had fallen by 50% in the Asia/Pacific region in comparison with the previous year, having the effect of knocking global traffic down by 20%. Notably, domestic China air traffic still grew by 5% year on year in 2003 in RPK terms, but its international traffic *fell* by 10%.

As the SARS virus spread its course, the hysteria that had dissuaded passengers from travelling dissipated. A year later air traffic had rebounded to resume its inexorable

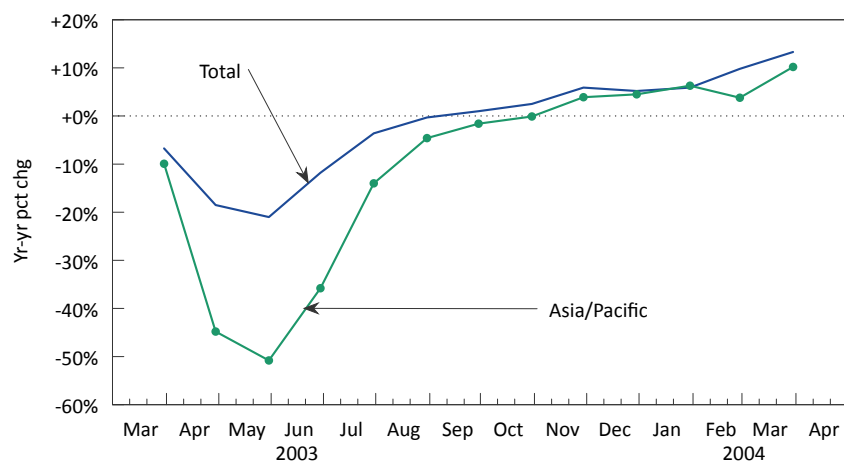
growth trend.

The MERS (Middle East Respiratory Syndrome) that appeared in Saudi Arabia in 2012 had minimal effect on global Aviation, but the outbreak of Ebola in West Africa in 2014 while having a disastrous impact on the local economies and populaces went unnoticed by the

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SARS 2003: IMPACT ON INTERNATIONAL AIR TRAVEL



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Publisher:

Keith McMullan
James Halstead

Editorial Team

Keith McMullan
kgm@aviationstrategy.aero

James Halstead
jch@aviationstrategy.aero

Tel: +44(0)207-490-4453

Subscriptions:

info@aviationstrategy.aero

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Aviation Strategy Ltd
Registered No: 8511732 (England)
Registered Office:
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SARS EPIDEMIC 2003

	Cases	Deaths	Rate of		Impact on 2003 GDP	
			Infection†	Mortality	%	US\$ bn
China	5,327	349	4	7%	-1.05	-14.8
Hong Kong	1,755	299	259	17%	-2.63	-4.1
Taiwan	346	37	15	11%	-0.49	-1.4
Singapore	238	33	58	14%	-0.47	-0.4
Other Asia	109	11		10%		
Canada	252	44	8	17%	-0.60	-4.7
USA	27				-0.07	-7.6
Europe	33	1		3%		
Others	10	1		10%		
World total	8,097	775		10%	-0.10	-33

Source: WHO, IATA

Note: † per million inhabitants

mass of travellers. After all, to quote Pliny, *ex Africa semper aliquid novi* (“there is always something new that comes out of Africa”, or possibly “don’t believe everything you hear”).

But the effect of this current pandemic is going to be different. Firstly its epicentre appears to have been a food market in Wuhan a major manufacturing city in the Hubei province in central China with a population of 55m. Secondly it broke out over a period when the city inhabitants were preparing the annual migration to celebrate the New Year.

More importantly, China has evolved dramatically since 2003: it now accounts for 17% of global GDP up from 5% seventeen years ago and under one measure is now the second largest economy on the planet. In purchase power parity terms it is now the world’s largest with over 20% share of the global economy. Its relevance to the global supply chain of manufactured and pre-manufactured goods is enormous: it is now the world’s manufacturer. Its share of global trade has doubled over that period (see chart below).

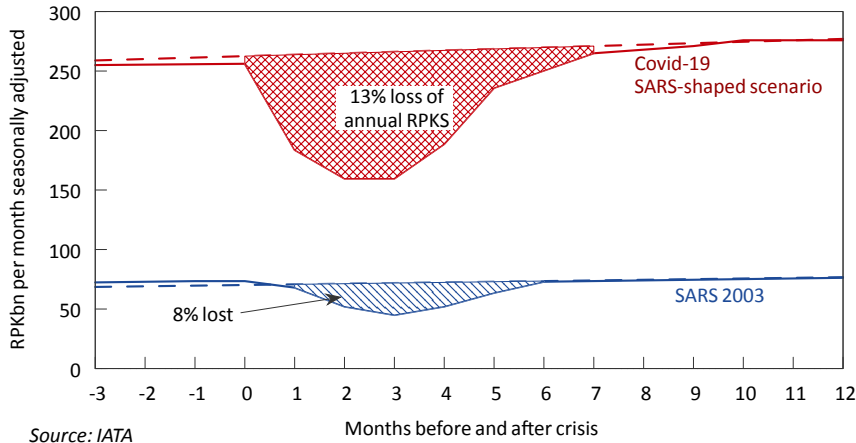
WEST AFRICAN EBOLA EPIDEMIC

	Cases	Deaths	Rate of		Impact on GDP 2014-15	
			Infection	Mortality	%	US\$bn
Guinea	3,811	2,543	316	67%	-6.0	-0.6
Liberia	10,675	4,809	2,644	45%	-5.0	-0.3
Sierra Leone	14,124	3,956	2,035	28%	-15.0	-1.9
Mali	8	6		75%		
Nigeria	20	8		40%		
Senegal	1					
Europe	3					
USA	4	1				
Total	28,646	11,323		40%		-2.8

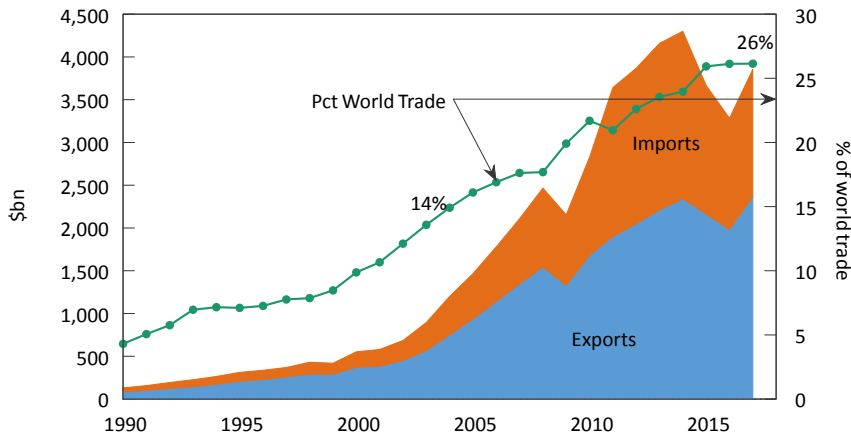
Source: WHO, IMF. Note: † per million inhabitants

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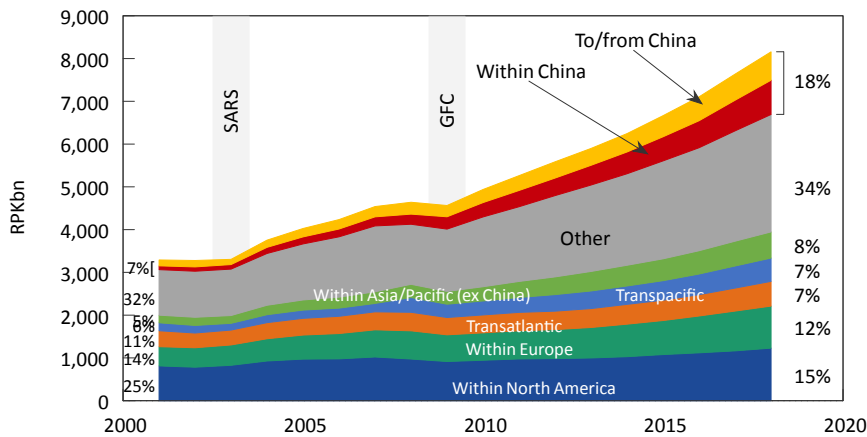
ASIA PACIFIC AIRLINES – COVID-19 A SCENARIO



CHINA: EXTERNAL TRADE



GLOBAL AVIATION TRAFFIC FLOWS



China's relevance to the aviation industry has also grown phenomenally: it now accounts for 18% of world demand in RPK terms compared with 7% in 2003 (see chart below). Seventeen years ago the majority of international traffic with China was inbound: in 2019 it was the largest outbound tourist market.

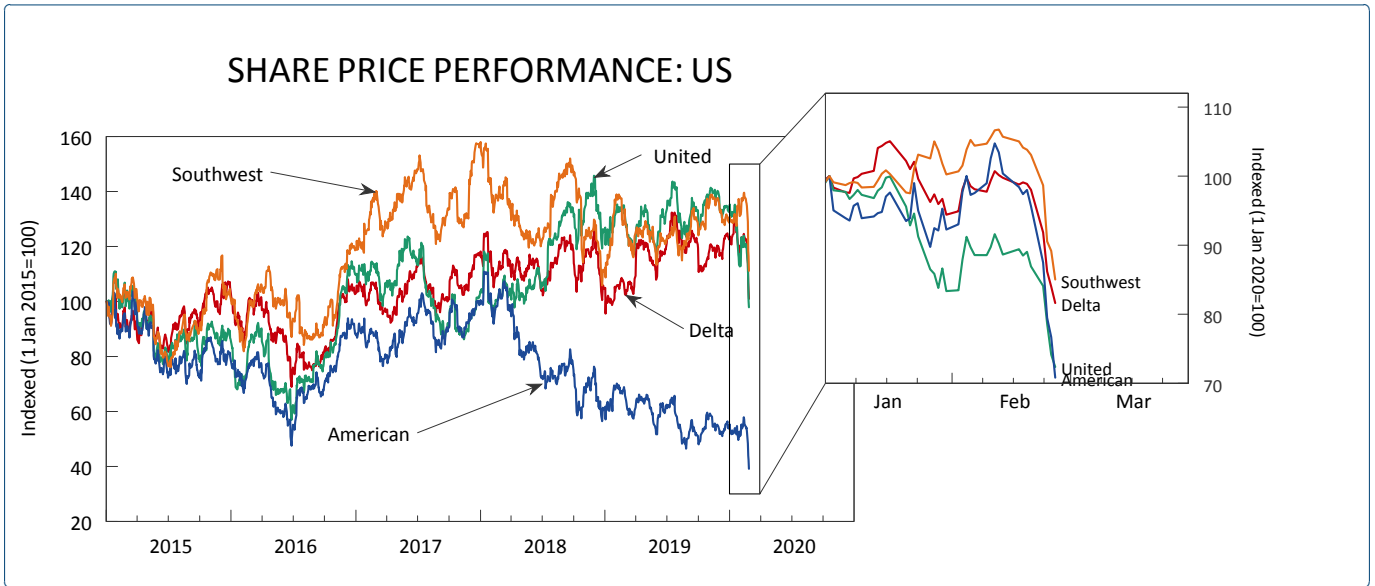
A fourth factor: the PRC has taken some unprecedented steps to attempt to contain the spread of infection, with a blanket ban on travel, extension of the lunar new year holiday, extended closure of schools and factories. The new year "rush" over the second half of January and first half of February saw domestic airline traffic down by 70% year on year and load factors plummet to 40%.

There will be fall-out. Cathay Pacific, already suffering from the effects of civil unrest in Hong Kong in 2019, has slashed its schedules, decimating its routes into mainland China, and has asked its staff to take extended unpaid leave. In China two-thirds of the aircraft fleet has reportedly been grounded. The Chinese Big Three (Air China, China Southern and China Eastern) as the de facto flag carriers of the PRC will no doubt be protected, but it has been rumoured that Hainan province may be in talks to rescue the financially challenged HNA Group (owner of Hainan Airlines among others).

There have also been rumours that some Chinese carriers have requested extended lease payment holidays (is there any lessor that could not agree?) which could have a knock-on effect on the aircraft leasing industry. And there will no doubt be other smaller carriers in the region who may not have the financial resources to outlast the crisis.

IATA has presented a reasonable

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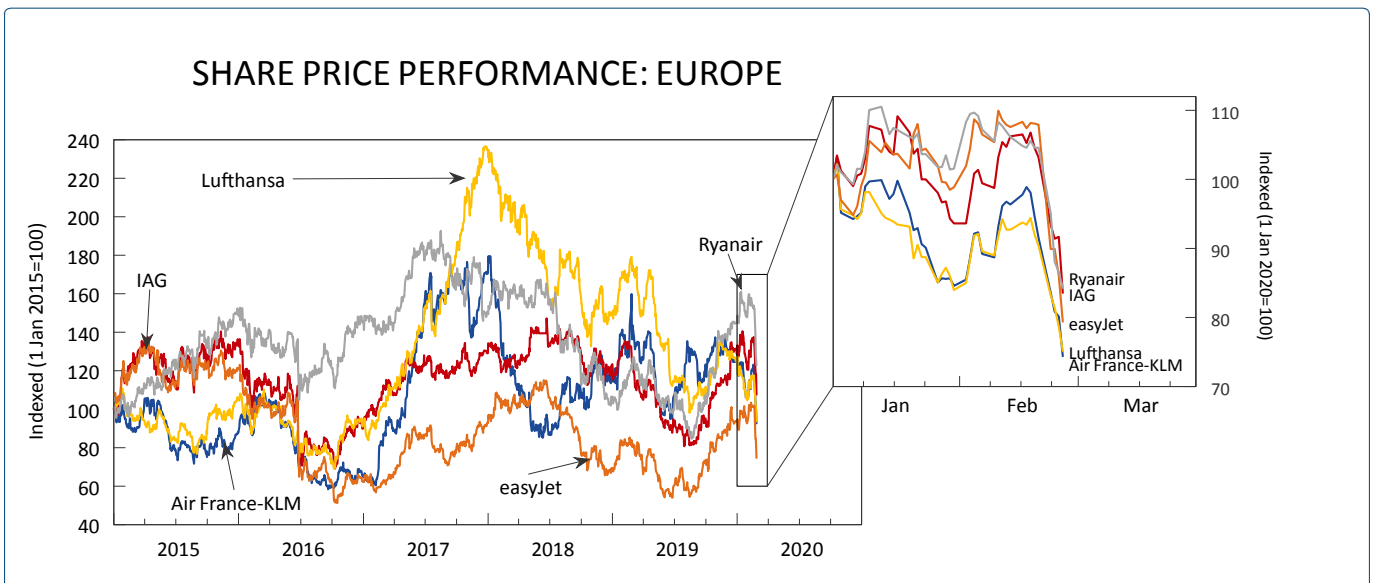
case that, should the Covid-19 pandemic proceed in the same way that SARS did in 2003, total traffic in the Asia/Pacific region in 2020 could fall by 8.2% compared with an expected growth of 4.8% (ie lose 13% of its annual traffic — see chart on the preceding page) and that this could have an effect of removing \$30bn in revenues for the region. The global impact under their analysis could be that world traffic demand this year would be flat at best, but that airlines in other regions would not be affected to that great an extent.

But globalisation and the growth of the Chinese economy has meant that the world is far more connected than it has ever been. The extended factory closures will definitely have an effect of dampening economic growth in China. But it is also going to have an effect on other economies, with vehicle manufacturers in the US and Europe suggesting that they will run out of parts (mostly manufactured in Wuhan); manufacturers in India complaining that they cannot get the denim manufactured in China to make into jeans to sell onto the

US and Western Europe; Apple suggesting that production of its iconic iPhone would be disrupted.

Oxford Economics has estimated that the effects of the pandemic could reduce global GDP growth by 1.3% this year. Let's hope they are being pessimistic.

One key difference this time with Covid-19 has been the authorities' reaction in China, Asia and Europe, imposing draconian containment policies and severely restricting travel. So the direct impact is clearly on the travel industry, in particular air-



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lines. And the direct impact is compounded by the mass psychologic reaction, which, much more than in previous epidemic panics, is driven by social media.

However, virologists have been almost universally supportive of containment tactics which in their view represent the most effective means of stalling the spread of the virus and reversing the epidemic. As viruses tend to dissipate in the summer the optimistic outlook is that the pandemic could be ended in a few months (as the disease is currently prevalent only in the northern hemisphere).

The impact on airline share prices has been dramatic. The Chinese Big 3 and Cathay collectively saw their share prices lose 20% in value in January. This was mirrored at the end of February with similar blanket declines in the US and Europe on the news that Italy was introducing containment measures in certain towns in Lombardy and Veneto. Air France-

COVID-19 EPIDEMIC				
	Confirmed cases	of which involve China Travel	Deaths	Mortality
China	78,630		2,747	3%
Asia/Pacific	2,155	135	17	1%
North America	71	21		
Europe	486	19	14	3%
Middle East/Africa	247	6	22	9%
At sea	705		4	1%
Total	82,294	181	2,804	3%

Source; WHO 27 Feb 2020

KLM and easyJet so far have registered falls of 28% from their highs in January, Lufthansa 26% and IAG and Ryanair 23%: in the US, Delta and Southwest are down some 20-22% and United and America by 28% and 32%.

The implication is that airlines are disproportionately exposed to the short term economic impact of this novel coronavirus but, assuming the

containment policy works, normal service will be fairly rapidly restored, and there will be a V-shaped recovery. It is somewhat risky to health to try to catch a falling knife, but has the crisis created a buying opportunity in airline stocks?

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LOT buys Condor: Perfect fit for PGL?

IN A SURPRISING move, the Polish Aviation Group (Polska Grupa Lotnicza or PGL), parent company of LOT Polish Airlines, has emerged as the preferred acquirer of Condor, Germany's largest inclusive tour airline, following the failure of its parent company Thomas Cook Group in September 2019. The deal is expected to close in April 2020 once competition authority approvals are obtained. It is unlikely that this will be a problem.

The German Government and the State of Hesse had guaranteed an emergency bridging loan of €380m to keep Condor flying through the winter season. Under the terms of the deal it appears that this loan will be repaid in full, and for the moment at least PGL will continue to operate Condor on a stand-alone basis. There are few other details of the acquisition deal.

Rafał Milczarski, LOT and PGL CEO, stated that the Condor acquisition "fits perfectly into PGL's strategy" while Ralf Teckentrup, chief executive officer at Condor, said "the acquisition has made PGL one of the largest aviation groups in Europe". That may be a bit of hyperbole: each carry around 10m pax a year and the combined 20m pales into insignificance against the top four European airlines. What precisely is PGL's strategy?

PGL is the Polish state-owned holding company that operates the national flag carrier LOT Polish Airlines, with other subsidiaries involving ground handling and maintenance. In a way it mirrors

the perfect McKinsey group airline structure developed for Lufthansa, Air France and Swissair in the 1980s.

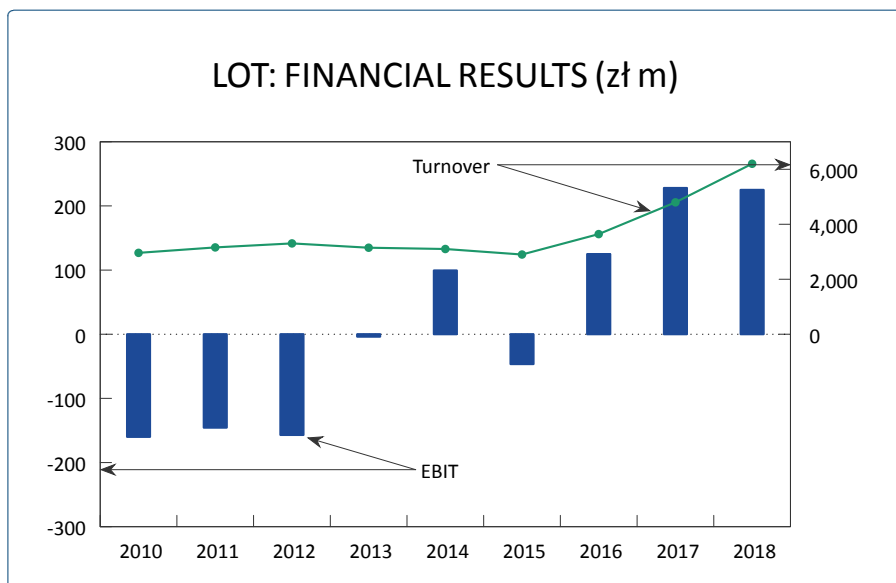
LOT has been through some tough times in the past two decades. It found it difficult to compete with the incursion of low cost carriers — Ryanair, Wizz and norwegian — and had seen its share of intra-European traffic into and out of Poland fall from over 30% to 18% by 2014, not being able to cope with the demand for low fare traffic after Poland joined the EU and Polish nationals demanded cheap fares to access the work and leisure opportunities that membership had provided. Between 2008 and 2013 it lost a total zł800m at the operating level.

In 2012 it was rescued by a capital injection of zł800m (€200m) from the state. Despite objections, the EU granted that this was allowable under its "one time, last time (every ten years)" rules finally giving credit that the state's restructuring plan

might work. The route network was slashed. The fleet renewed: aged 767s replaced with new 787s, 737 classics gradually replaced with 737 new gen and later 737MAX. There were swingeing cuts: a 35% reduction in ground staff; it changed employee compensation from a salary-based structure to payment by the hour.

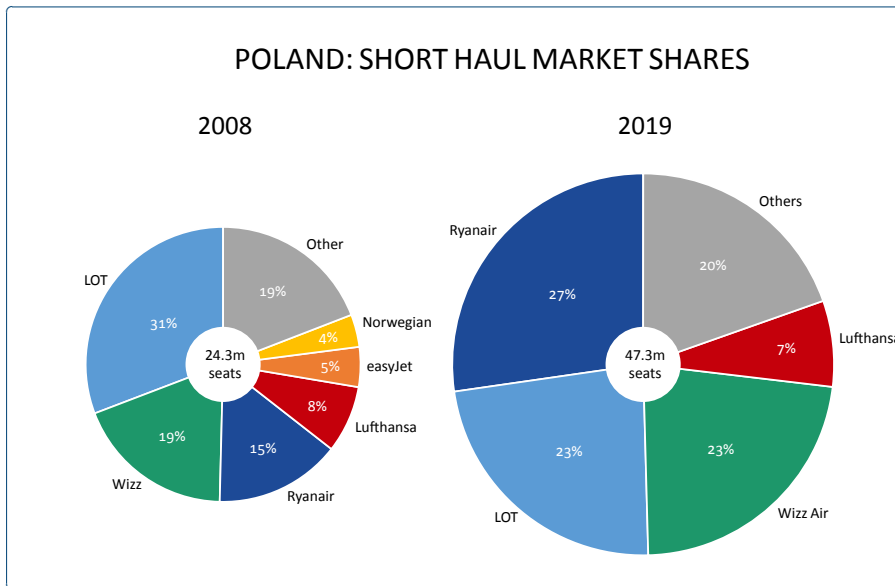
LOT returned its first operating profit in six years in 2014, and once the breaks were off from the constraints of restructuring began to grow strongly from 2015. Since then it has doubled turnover from zł3bn to zł6bn, passengers carried from 5m to 10m and, remarkably, achieved operating profit margins averaging 5% a year.

In the process it has also significantly increased the number of destinations to which it operates, both regionally and intercontinentally. As it has grown its widebody fleet of 787s (from nine to fifteen in the last two years) it has expanded



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POLAND: SHORT HAUL MARKET SHARES



through Warsaw's Frydryk Chopin airport connects.

Is there room for another intercontinental hub in Europe? Warsaw is half way between Frankfurt (Lufthansa's base and the third largest hub in Europe) and Moscow (which Aeroflot is attempting to establish as a transfer point between Europe and Asia) — each 1,000km away. It also competes with Finnair's eastward facing hub in Helsinki. LOT's fellow Star Alliance partner Lufthansa is following a policy of targeting traffic from CEE countries through its group hubs in Frankfurt, Munich, Vienna and Zurich to points east and west. But LOT is excluded from the Anti-Trust immune joint venture that Lufthansa has with United and Air Canada on the North Atlantic.

Following the UK's exit from the EU, Poland is now the fifth largest nation in the bloc with a population of 38m. But its economy is outperforming the stagnant economies of Western Europe. GDP growth in 2019 is expected by the IMF to have been a bit over 4% in real terms, and is forecast to grow by between 2% and 3% a year over the next five years.

On the announcement of LOT's

long haul scheduled detinations from four (New York, Chicago, Beijing and Toronto) to 14 adding Newark, Seoul, Los Angeles, Tokyo, Singapore, Miami, Delhi and Colombo since 2015, with operations to Washington and San Francisco planned for 2020.

While building this network it has achieved some reasonable success in pushing 787 operations into the long haul charter market out of Poland to satisfy ad-hoc tour operator demand — and is reputed to have achieved 787 utilisation of over 19 hours a day.

It has also opened long haul routes from Budapest — to Seoul and New York — in the absence of an Hungarian national flag-carrier following the demise of Malév in 2012. However, it lacks short haul feed into Budapest which would normally be needed to make such routes truly viable.

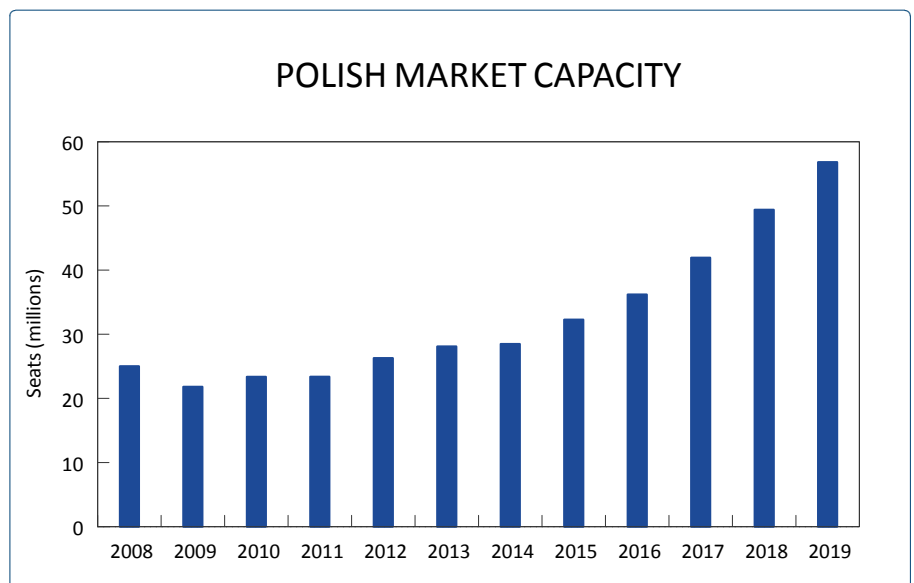
LOT also established a regional network of sorts based in the Estonian capital Talinn — with a 49% stake in that nation's flag carrier Nordica. This was effectively closed down in June 2019.

Within Europe and on short haul it has doubled the number of destinations from Warsaw from 42 in 2015,

and has increased capacity by an annual average 23%. Much of this is provided by service on regional aircraft: LOT has only 16 737 narrowbody jets in its fleet (including five 737MAX8s currently on the ground, and eight on order) but 35 ERJ170/190s and 12 Dash-8s.

The strategy appears to be to build a network connecting hub in Warsaw, focusing on connections from other Central and Eastern Europe (CEE) countries to North America, and Europe as a whole to Asia. Already 50% of its traffic

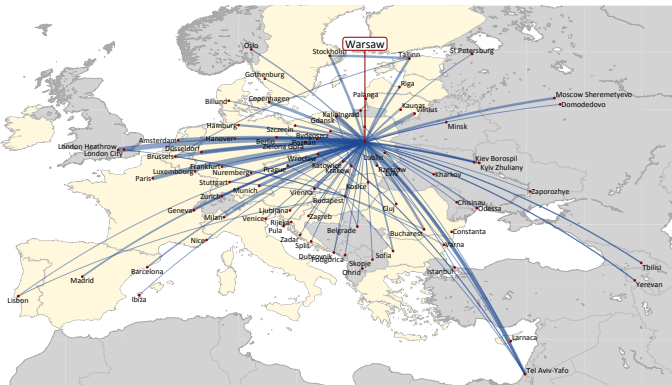
POLISH MARKET CAPACITY



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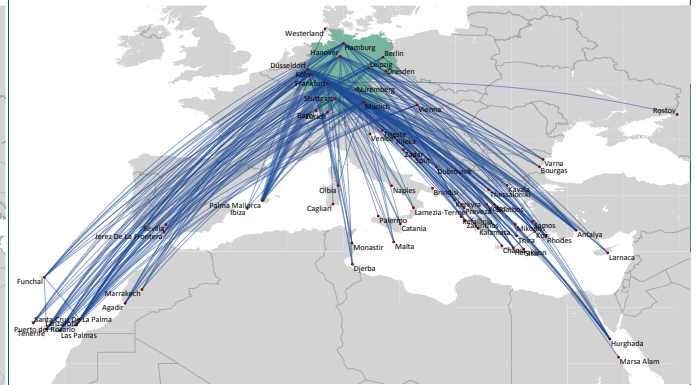
LOT: ROUTE NETWORK

SHORT HAUL



CONDOR: ROUTE NETWORK

SHORT HAUL



LONG HAUL



LONG HAUL



acquisition of Condor Poland's prime minister, Mateusz Morawiecki, stated that "Polish companies from all sorts of sectors are expanding, but this expansion of LOT is really symbolic. In the past, foreign companies bought up precious Polish assets. It fills my chest with pride that Polish companies can... effectively take over foreign assets." As the *Financial Times* pointed out this is a comment that smacks of political symbolism and not necessarily economic reality.

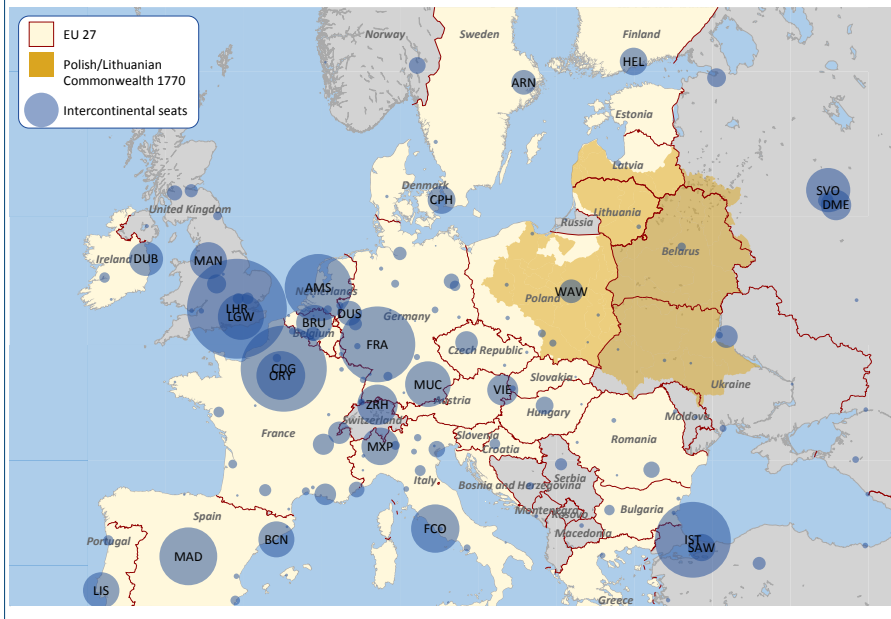
Poland's ruling Law and Justice party (*Prawo i Sprawiedliwość*, or PiS) came to power in 2015, and was re-elected in 2019, with an outright majority — the first time this had happened in Poland since the fall of communism. It is described as a right wing conservative populist party, and, according to the *New York Times*, achieved its popularity by offering to "make Poland great again".

The Polish state gained inde-

pendence in its current form after the Treaty of Versailles and the end of World War I having been under foreign control for the previous 125 years. But in the 16th and 17th centuries it, as the Kingdom of Poland and Grand Duchy of Lithuania, had been the largest country in Europe. It is unlikely that the PiS is really harking back three hundred years to former glory, but Poland has historical and cultural links that pervade the current CEE region.

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EUROPE: INTERCONTINENTAL HUB COMPETITION



Warsaw's Frydryk Chopin airport (with a current throughput of 19mppa) is reaching design capacity. Poland has plans to replace it with a greenfield new build airport. Nominated the Centralny Port Komunikacyjny (Central Communication Port), the initial design concept is for an airport with two runways and capacity of up to 45mppa on opening in 2027, with an eventual design plan for four runways and a capacity of 100mppa. Located half way between Warsaw and Łódź, 40km outside the capital city, it is envisaged that it will act as a major intermodal hub providing interconnections between rail and road for passenger and freight transport. It is possible that this will then provide LOT with a real base to establish a powerful hub to compete effectively on trade routes between Europe and Asia, and a platform for further strong growth.

So how does the acquisition of Condor fit in with the Polish flag carrier's strategy?

Not much it seems. Condor is a

leisure airline heavily dependent on the German inclusive tour market. Under ownership of Thomas Cook it relied on its parent company to provide 50% of its traffic. That source of demand has disappeared, but will no doubt be replaced by other tour operator companies. However, its business risks will increase as it becomes more dependent on a more disparate customer base. It has been described as profitable: but with €54m profits on €1.7bn of revenues in 2017/18 that profitability represents a dismal 3% margin and would have been heavily dependent on its parent company transfer pricing policies.

The German market is decentralised, all due to the federal nature of the country. As a result Condor's operations involve sourcing flights from each of the Länder capitals. Its major destinations are determined by the programmes of its tour operator customers and involve the major 4S destinations (sun, sea, sex and sand) in the Canary Islands, Mallorca,

LOT FLEET

	In Service	Avg Age
737-400	1	23.0
737-700	1	17.1
737-800	7	13.1
737MAX8	5	1.7
787-8	8	5.7
787-9	7	1.1
Dash 8	12	8.3
ERJ170	16	12.9
ERJ190	19	7.7
Total	76	8.5

and Greece. German tourists are some of the more adventurous in the world and it also has a wide ranging set of routes (but at limited seasonal frequency) to destinations in the Americas, Africa and South East Asia. Its largest base of operation is out of Frankfurt, where up to now it has had a cosy relationship with its former owner Lufthansa, and has been able to arrange feeder connections. That relationship will disappear: Lufthansa has clearly stated that it will defend its "home territory" of the tedescophone countries.

Condor probably has a basis for continued existence in its current form under LOT ownership. The German consumer is conservative, and the trends in other countries that has seen the decline of Inclusive

CONDOR FLEET

	In Service	Avg Age
A320	9	20.9
A321	10	5.7
A330	1	6.0
757	15	20.3
767	16	24.4
Total	51	18.5

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Tour holidays has been protected to an extent by local laws prohibiting pricing differential between on-line and high street travel agency pricing.

But Condor has an aged fleet with no commonality with that of LOT:

a short haul fleet of 19 20-year-old A320 family aircraft, one A330 and 31 ancient 757 and 767 aircraft. These will need to be replaced, and the cost of that replacement is unlikely to be cheap.

Is the ultimate aim of this mini-conglomerate actually privatisation? If so it will add to the colourful history of Eastern European aviation.

Where are they now?

With the fall of communism in Eastern Europe following the revolutions of 1989, there had been a flurry of interest in the idea that the former state-owned airlines would be privatised.

Interflug

In the late 80s we had a rare meeting in East Berlin with the top managers of the national carrier of East Germany (or the DDR) — Interflug. Operating a quite extensive fleet of Ilyushins and Tupolevs, albeit at a couple of hours per aircraft per day, it was probably the leading airline in Eastern Europe at that time. It was also, according to its managing director, much more efficient than Lufthansa or any other Western airline.

The reason was that, because of socialist central planning, it operated with no surplus capacity, being able to match supply perfectly with demand; it knew exactly what passenger demand would be as the information was supplied by the Economics Ministry, which issued exit and entry visas for business travel, and the Labour Ministry, which decided how many workers would be allowed to fly on vacation to Black Sea resorts. Interflug was also very good at crop spraying, and met or exceeded its hectare targets every year.

Anyway, the Berlin Wall fell in November 1989, and Interflug soon went the way of the Trabant.

Balkan Bulgarian

Balkan had operated a moderately successful intra-European hub in Sofia. There

had been continual rumours of privatisation throughout the 1990s with mentions of German and Russian investor interest, and in 1998 it emerged that a management buyout plan backed by a US institutional investor was ready to pay \$450m for a 75% stake.

In the end, that stake went to an Israeli group for \$0.15m in 1999, and when Balkan finally went into liquidation in 2002, it turned out that the company had been declared insolvent a year before the transaction.

Malév

Hungary's flag carrier went through an initial round of privatisation in 1993, with a 30% stake going to Alitalia for \$373m. Four years later this was bought back so that Alitalia could stave off insolvency and gain \$1bn in its first round of state aid.

The Hungarian government tried repeatedly to find buyers, finally agreeing to sell a 99% stake to AirBridge zrt, itself 49% owned by the Russian Abramovich Brothers who owned Russian carrier AirUnion. When their airline went bust in 2009, the AirBridge stake was taken over by Russian bank VEB, and Aeroflot brought in to manage Malév.

But then Hungary renationalised the carrier in 2010, and then threw in the towel when the EU declared that it had provided illegal state aid, and allowed the airline to close in 2012.

At least it proved the learning ground for József Váradi (CEO from 1999) who left

in 2003 to found Wizz Air, which he still runs very successfully.

ČSA

We had a chance to meet the management of the Czech flag carrier soon after the revolution in 1989 to discuss the possibility of privatisation. ČSA had been one of the more progressive COMECON airlines, having been able to acquire western built aircraft from the early 80s. At the time, it still had rather a large number of Tu134, Tu154 and IL-63s on which it managed to achieve a utilisation of only a couple of hours a day — the management ruefully accepted it was not very sensible, but they had to keep the fleet to be able to cannibalise it for spares.

It became a joint stock company in 1993 and the government sold a really impressive stake of 2% to Air France.

It enjoyed reasonable growth through the next fifteen years (from 1.5m passengers to just under 6m by 2008) but had no success in profitability.

Air France bowed out and then in 2013 Korean Airlines acquired a 44% stake for some unfathomable reason. Two years later it invited in charter carrier Travel Services (now Smartwings) and in 2017 subsequently sold its entire stake to them.

Smartwings, 49% owned by Chinese conglomerate CEFC China Energy, now owns 99% of ČSA and is now the largest Czech airline with charter subsidiaries in Poland, Hungary and Slovakia.

ČSA meanwhile is half the size it was in 2008.

CEE Legacies

	Revenues (€m)	Operating Profits (€m)	Passengers (m)	Aircraft
LOT	1,426	52	10	76
Interflug	<i>Expired 1990</i>			
Balkan Bulgarian	<i>Expired 2002</i>			
Malév	<i>Expired 2012</i>			
ČSA	1,195	12	3.0e	14
TAROM	306	-28	2.75	25
JAT	<i>Expired 2013</i>			
Air Serbia	288	12	2.48	20

Qantas: Ultra long haul Project Sunrise

AUSTRALIA is a wonderful country. The world's smallest continent and largest island, it has been described as a traveller's paradise: home to some of the quirkiest wildlife, coral reefs, picturesque rain forests, red-earthed national parks, stunning beaches, and scorching deserts.

But it is also a *very* long way from anywhere.

There are very strong cultural links with the UK, the historic colonising power (the two countries still share a Head of State). And Qantas, the national flag carrier naturally has pursued the politically sensitive aim of providing links with the "mother" country half way round the world.

Qantas initiated (and trademarked) the first "Kangaroo route" service between Sydney and London in 1947: 29 passengers and 11 crew in a Lockheed Constellation with stops in Darwin, Singapore, Calcutta, Karachi, Cairo and Tripoli. It took four days (and cost £585) to cover the 19,200km.

Current widebody aircraft can now easily do the route with just one stop. However, this has meant that it is still open to significant competition from carriers based at hubs vaguely intermediate, with connecting flights on offer through Singapore, Hong Kong, Kuala Lumpur, Taipei, Chengdu in Asia; Dubai, Abu Dhabi and Doha in the Arabian Gulf; and even going the other way round the world through Los Angeles could be attractive.

However, airlines based at the ends of such an ultra long haul route are at a distinct competitive disad-

vantage: they have to fill up their aircraft with O&D passengers who want to go the full distance or to the intermediate stop, and have to compete against those that can afford to undercut fares to attract marginal traffic on connecting services.

Qantas and British Airways are now the only two airlines operating through routes (not involving a change of aircraft) between Europe and Australia after Virgin Atlantic closed its loss-making service six years ago. The other two major European network carrier groups — Air France-KLM and Lufthansa Group — stopped flying there in the late 1990s.

Transformation

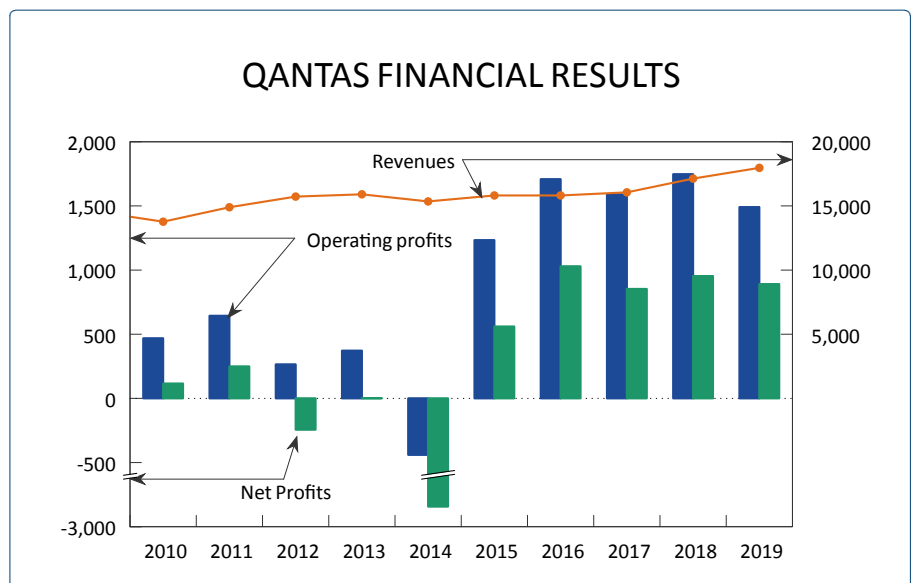
Qantas went through an extremely difficult period after the global financial crisis, with its flagship Qantas International operations turning in significant annual losses. At one point it looked as if it might even have consid-

ered withdrawing entirely from very long haul flying entirely to stem these losses and concentrate on the growth opportunities it had created in Asia through its low cost brand Jetstar.

But then in 2013 it instigated a major "Transformation Programme" to return the group to sustainable profitability and improve earnings by A\$2bn. It cut 15% of its workforce (5,000 jobs), restructured its network, significantly improved productivity and disposed of unwanted assets.

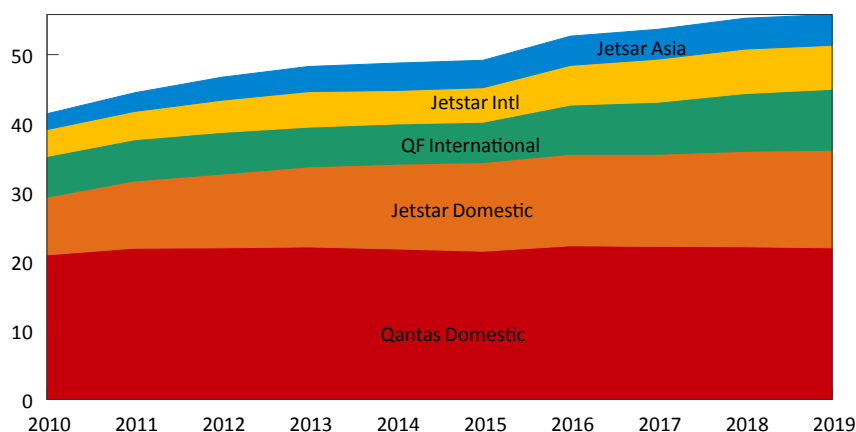
Unfortunately, the organisational restructure which involved splitting the "old" Qantas into separate operating units — QF Domestic, QF International and QF Cargo — led to an accounting writedown (accelerated depreciation, restructuring costs and operational unit goodwill) and the group reported a statutory net loss of A\$2.8bn for the financial year ended June 2014.

On long haul operations it sev-



Aviation Strategy

QANTAS: GROUP PASSENGERS BY DIVISION (m)



ered its long-standing joint service agreement with British Airways on routes to Europe (which to all accounts hadn't been *that* profitable), switching to a comprehensive alliance with old enemy Emirates: services on the Kangaroo route would stop in Dubai allowing connections onto all Emirates services into Europe while Qantas only retained a through-route A380 service to London. It signed a deep code-share agreement with China Eastern for routes through Shanghai. It tried to get an anti-trust agreement for a joint venture with American on the Pacific

(finally approved in June 2019).

This restructuring worked — helped by a certain relaxation of inbound competitor growth and increasing capacity “discipline” in the domestic Australian market. (For the financially-challenged competitor position see last month's article on Virgin Australia). For the last five financial years Qantas has increased total group capacity by an average annual 1.3% but traffic has grown by 3% and load factors improved by five percentage points to 84%. Importantly for its strategic aim to provide returns to shareholders it

achieved a return on invested capital of around 20% in each of the past four years, dipping only slightly to 19.2% in the year to end June 2019 — well above its cost of capital.

This stability has extended so far into the current financial year. In its first half results statement, Qantas announced a 2.8% growth in revenues to A\$8.3bn on the back of flat capacity in ASK terms, a modest 0.7% increase in demand in revenue passenger kilometres and a 2.8% increase in unit revenues. Unit costs were well contained, despite a small 1% increase in fuel prices and underlying operating profits were much on a par with the prior year levels at A\$900m — giving an operating margin of 10.8% and a rolling annual RoIC of 19.6%.

Within the group numbers, the QF Domestic operations saw a 3% fall in first half operating profits to A\$464m on the back of flat capacity and a modest 1% growth in unit revenues. The Jetstar Group suffered a little on the domestic operations from weak leisure demand, and took a \$12m hit from strike action, but increased capacity by 4% on its international operations. Revenues were up by 4% but operating profits down by 13% to A\$220m representing a margin of 10.4%. Qantas Loyalty produced a record first half result with revenues up by 8%, frequent flier membership increasing by 5% to 13.2m, and operating margins nudging up by nearly 1 point to 22.5% giving underlying operating profits of A\$192m 12% higher than the prior year level on a like-for-like basis.

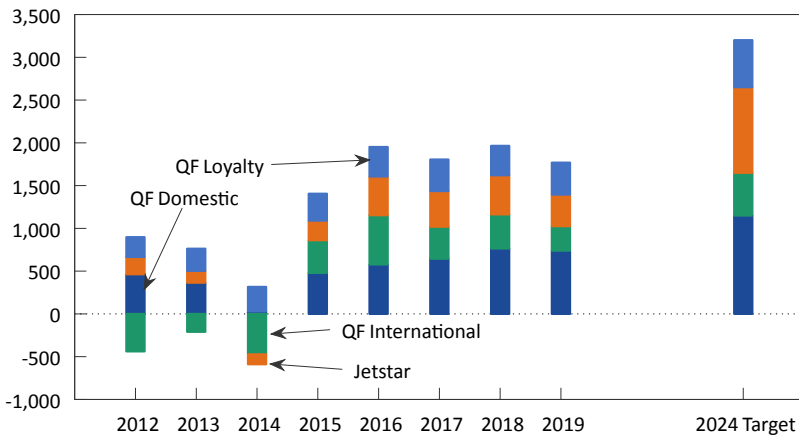
Qantas International meanwhile improved earnings (by 2.5% to A\$122m) despite trimming capacity by 1.5%, a \$65m hit from troubles in the Hong Kong and freight markets, and modest increase in fuel costs.

QANTAS GROUP FLEET

	Qantas	Jetstar	Total	On order
717	20		20	
737-800	75		75	
747-400	5		5	
787	11	11	22	3
A320	3	112	115	45
A321		8	8	54
A330	28		28	
A380	12			
Dash 8	17			
F70/100	49		49	
Total	220	131	322	102

Aviation Strategy

QANTAS OPERATING PROFITS BY SEGMENT



years: by 2024 it hopes to achieve operating margins around 18% at QF Domestic and 22% at Jetstar Domestic; a return on capital of over 15% at Jetstar International and over 10% at QF International; stable earnings growth at Qantas Loyalty to between A\$500m and A\$600m.

Kangaroo Route profitable at last

One of the more interesting comments at the investor day was that the Kangaroo Route had at last become profitable for the first time in a decade. A major reason behind this was concentrating through-routes to Europe via Singapore, where Qantas' subsidiary Jetstar Asia is the second largest LCC and provides increasing feed at the hub. Routes through Dubai are left to its code-sharing agreement with Emirates.

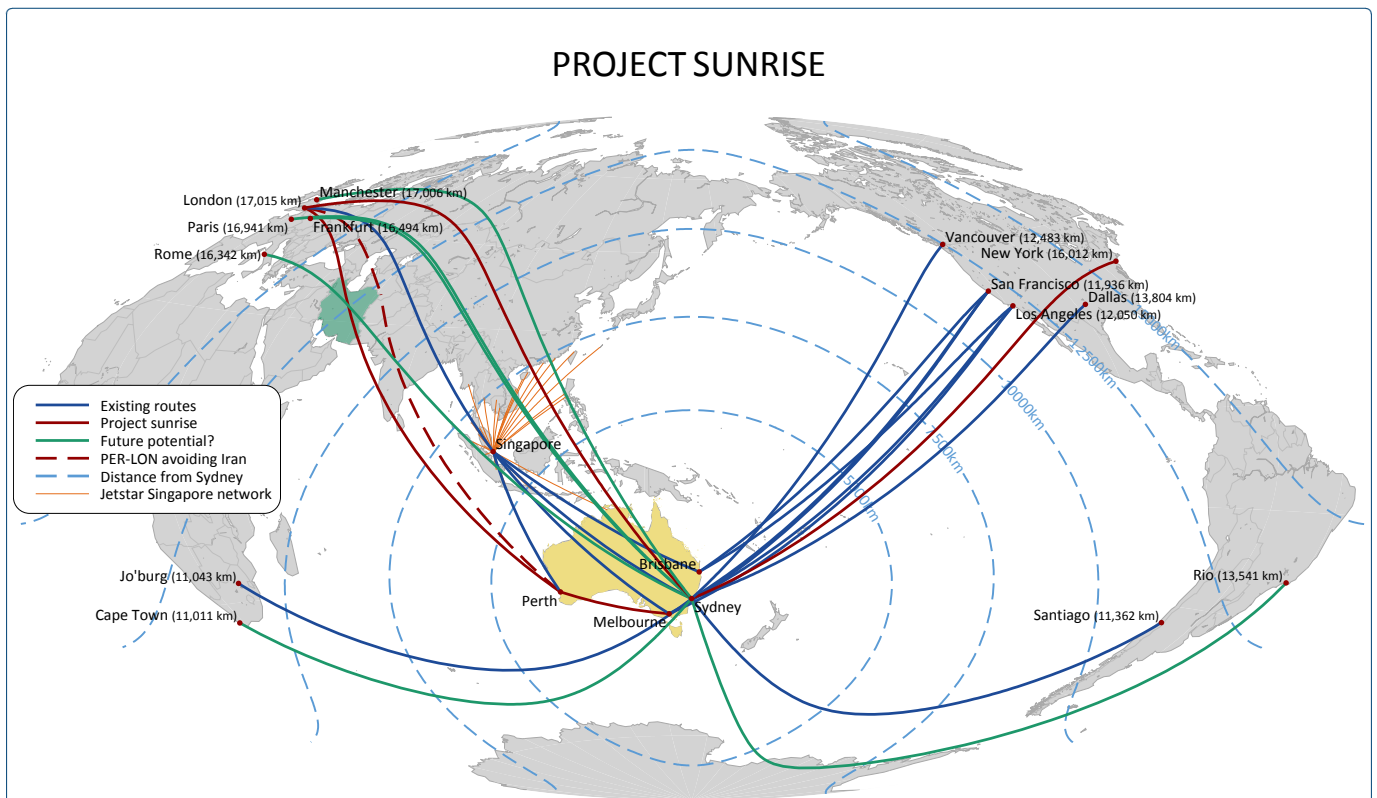
Another was the introduction of direct services between Perth and London using low density 787-9 aircraft (236 seats — 42 lie-flat busi-

Here the restructuring programme is starting bear fruit: Qantas expanded its 787-9 fleet from eight to 11 aircraft (it has another three on order) and disposed of one of its ancient 747s (the remaining five are expected to leave the fleet in 2020).

The company has strong ambitions. At the November 2019 investor

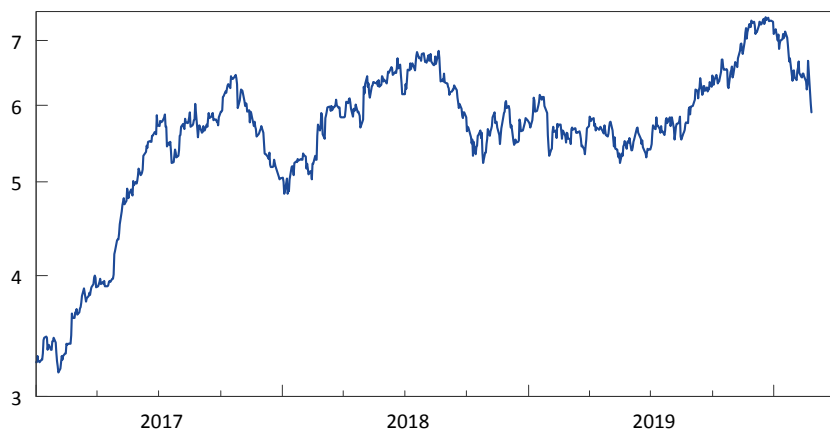
day, CEO Alan Joyce highlighted that the transformation programme had so far provided results improvements of an annualised A\$3bn, but that programmes in place gave optimism to be able to achieve further profit enhancements of over A\$400m a year, and the group has targets to double operating profits over the next three

PROJECT SUNRISE



Aviation Strategy

QANTAS SHARE PRICE PERFORMANCE



ness class, 28 in premium economy, with 38" seat pitch, and 166 in the back of the bus). This route is hailed as the second longest air route in the world (after Qatar's operation between Doha and Auckland) with a great circle distance of 14,500km and travel times of 16-17 hours and is at the extreme of the 787's maximum range. Unfortunately at the moment restrictions on overflying Iran make the route a little longer (by 100km) and may impose limitations on load.

Qantas has found that passengers are willing to pay a distinct premium for a direct non-stop service (it actually operates the flight from Melbourne tagged via Perth to London) of around 30% against one-stop services. It boasts that it is achieving an extraordinary 94% load factor on the

route (and a 99% load factor in business class).

Our own, unscientific testing of current pricing seems to suggest that the passenger is willing to pay an even higher premium of up to 100% (see table above) — putting a business passenger's concept of the monetary value of time at around A\$500 (US\$330) per hour to save four hours from a 20+ hour journey.

Not everybody would like to be stuck in a plane for that length of time. And Qantas will probably have to redesign the standard operating procedure for in-flight services (meal after take-off, go to sleep, breakfast on arrival). One on-line blogger posted a review of the Perth-London flight in economy pointing out that the length of the flight meant that he was left

alone for twelve hours, but was only offered two drinks and, depressingly (because of the flight timings) it was dark all the way. He praised it as the longest flight in the world without seeing any daylight.

The success of the Perth-London route has led the company to pursue its "Project Sunrise" — developing ultra-long-haul routes between Australia, Europe and the USA. The ultimate desire is to link Sydney direct to London — a great circle distance of over 17,000km — but Qantas has also suggested that it will be looking at serving New York (a mere 16,000km).

But these ultra long-haul routes add a complexity to operations. They are expensive to run — not least because of the need to carry so much extra fuel to carry all the fuel needed to reach the destination safely (which may result in payload restrictions). There are also crewing concerns relating to duty hours and complements. For a daily operation they will require a dedication of at least four aircraft per route. Whatever happens, these routes can only make commercial sense if they have a high level of premium demand.

In the last quarter of 2019 Qantas successfully conducted a handful of research flights (rerouted ferry-flights on delivery of new 787-9s from Seattle) with 40 people on board to test ways to improve well-being of passengers and crew on ultra long-haul flights. It has been in negotiation with the unions to discuss rostering and pay — supposedly without a huge amount of success yet. It has also selected the A350-1000XWB as its preferred aircraft. It will take the final decision to pursue an order of around ten aircraft by the end of March 2020.

Meanwhile, if Qantas does go ahead with Project Sunrise it will need to find reasonable routes to

NON-STOP PREMIUM: PERTH-LONDON

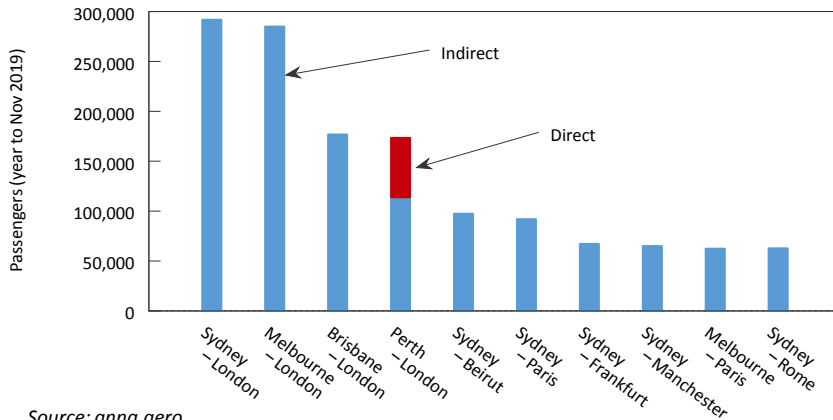
A\$	Business	Premium Economy	Economy	Flight time
Direct	7,718	3,716	1,297	16:45-17:45
1 Stop	4,007	2,063	816	20:00-25:00
2+ Stop	3,039	3,681	866	25:00-30:00

Source: Skyscanner.

Notes: cheapest available t+30, return +30. † currently half an hour longer to avoid Iranian airspace.

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TOP ULTRA LONG HAUL ROUTES FROM AUSTRALIA



Source: *anna.aero*

operate. In the presentations at the investor day it seemed to suggest that it would look at Sydney to Cape Town and Buenos Aires. These are not necessarily “ultra” long haul but do present their own complications for direct routings over Antarctica (where there are not a lot of airports to comply with EROPS).

In the chart above we show a series of routes identified by *anna.aero*

in their assessment of the potential of unserved direct routes from Australia through analysis of the schedules and searches. It may not be surprising that London features in the top four, and that these are from each of the four cities in Australia: London has the highest level of pure O&D long-haul traffic of any international hub. Paris and Frankfurt are there, although these may be more diffi-

cult to justify on commercial viability grounds: Paris has half the level of O&D traffic on long haul routes compared with London and Frankfurt half that of Paris. Surprising entries are Beirut and Rome, which are unlikely to satisfy requirements for a high level of premium demand, and the latter would require circuitous routings to avoid the currently challenged Iranian airspace.

Alan Joyce describes Project Sunrise and the pursuit of ultra long-haul travel as the ultimate remaining aviation challenge. It is a brave challenge — to connect the antipodes by direct flights. But the problem is that this is a niche market. And niche markets in aviation have a habit of disappearing.



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Southwest: Eggs in the one basket problem

SOUTHWEST is universally acknowledged as the prototype for LCCs throughout the world. It is a very robust prototype, having just produced its 47th straight year of profitability, but the MAX is proving to be a big problem.

A central tenet of Southwest's operating model has been adherence to a single aircraft type, bringing economies in terms of crewing, training and maintenance, simplifying scheduling and route development decisions, and obtaining very favourable pricing and conditions from the manufacturer in return for exclusivity.

Southwest's intimate relationship with Boeing dates back to 1971 when the then CEO Lamar Muse (the originator of the Southwest model; the much more famous Herb Kelleher was the company lawyer at the time and didn't take over the CEO role until 1981) struck a deal for three 737-200 white-tails, a deal he negotiated from the Long Beach office of McDonnell Douglas which thought that it was selling the start-up airline some DC-9s. The terms of the Boeing purchase: \$4m per aircraft, no deposit, \$50,000 per month for 60 months, interest rate at 1.5% over prime, balloon payment after five years.

Forward 50 years and Southwest has a fleet of almost 750 737s, 164m passengers/year, a stockmarket value of \$26bn, and the MAX problem. As CEO Gary Kelly nicely put it at the 2019 Results Presentation in January: "This sort of illustrates the risk of having all your eggs in one basket".

MAXed out

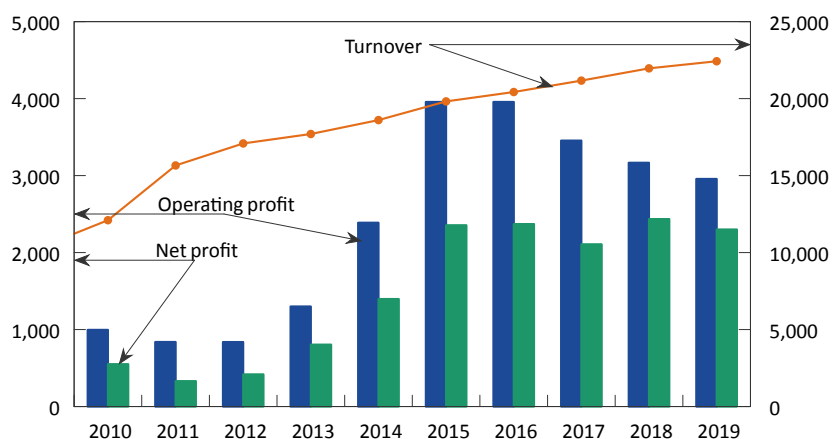
At the time of grounding, March 2019, Southwest was operating 34 MAXes, which have since been parked in California and which will have to go through a maintenance and make-ready process before they can be flown again. Southwest also has 27 MAX 8s and 7s which have been completed but not delivered by Boeing. With crews available these units could be fairly rapidly returned to service at a rate of 5-10 per week, once the aircraft is recertified. As simulator training is now a requirement to ensure safe operating under MCAS, Southwest is in the process of doubling its MAX sims to six.

According to Southwest's summary of its contract with Boeing, 2020 deliveries should total 78. This is made up of the 27 aircraft held by Boeing at Renton plus another 35 scheduled 2020 deliveries plus 16

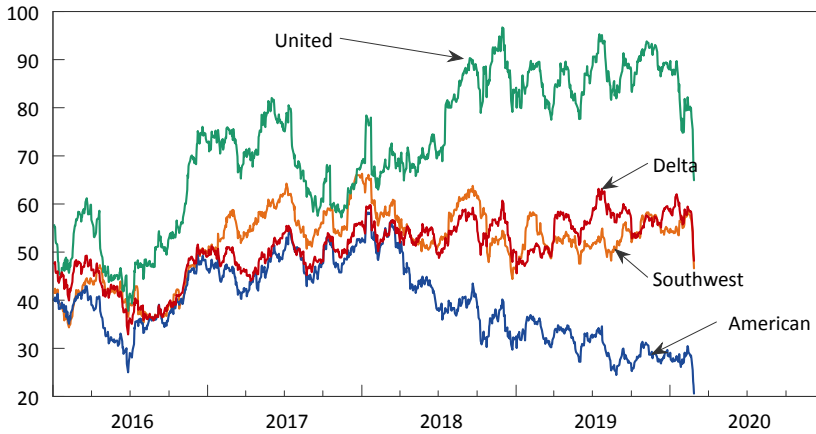
units that under the contract should be provided on operating leases from third parties to compensate for 737-700 retirements that were scheduled to take place in 2019/20 but which Southwest could not implement because of shortage of capacity.

The 2020 figure of 78 deliveries is clearly theoretical. Southwest had been planning on a June resumption of MAX service but in late January Boeing "surprised" the airline by predicting July ungrounding date. Southwest is now planning for just 27 deliveries from Boeing this year which, when added to 34 units that are currently parked under Southwest's operating licence, would imply an end-year MAX fleet of 61, whereas this time last year Southwest was planning on a fleet of about 112 by end 2020. There is, of course, no guarantee that the 61 figure will be met: the ungrounding decision is in the hands of the increasingly stressed FAA.

SOUTHWEST: FINANCIAL DATA



SHARE PRICE PERFORMANCE



All the other MAX operators are, or should be, closely watching what happens at Southwest, not just because of the size of its MAX orderbook (other carriers have larger commitments) but also because of its critical importance to Boeing. Southwest's compensation terms could act as a benchmark for the other airlines.

Towards the end of last year Southwest reached a confidential agreement with Boeing on 2019 financial damages, structured as a

reduction in the prices paid for the delivered owned fleet and the scheduled deliveries. The amount does not show up in the P&L account but a line item in the cashflow account shows cash-in of exactly \$400m under "supplier proceeds", presumably is Boeing's first payment to Southwest which the airline will use to reduce capex on its orders.

A strong indication of the unit pricing for its MAX 8s was given by the CFO, Tammy Romo, who stated that

the 27 MAX 8s scheduled for delivery this year would entail capex of \$1.4-1.5bn, net of or about \$53.7m per unit, net of supplier proceeds, which is half the list price of \$106.1m. She also confirmed that no Pre-Delivery Payments have been made since last March.

However, the \$400m figure is less than half the loss Southwest attributed to the MAX grounding in 2019: \$828m or 28% of the actual operating profit of \$2.96bn. There are several element to Southwest's calculation of this loss: having to use older types instead of MAXes (which have a fuel consumption advantage of 14% over the NGs) caused a reduction of 1% fall in ASMs/gallon against a planned improvement of 2-3%; ex-fuel CASM increased by 7.7% in 2019 largely due to the fact that total ASMs fell by 1.6% while the cost structure was in place for a planned 7% rise in capacity; unexpected maintenance charges on 737NGs that should have been retired also added to the cost. Unit revenue, RASM, was up 3.7% in 2019, but the company did not attribute any of this increase to capacity squeezes caused by the MAX grounding.

In addition to the direct costs Gary Kelly has highlighted major concerns about how Southwest is being outpaced by competitors which are unaffected by the MAX problem, losing 7-8m passengers to other carriers because of lack of flying capacity, and has said that this element will be brought into the next round of compensation negotiations.

So the 2020 compensation agreement is likely to exceed that for 2019, bringing Boeing's total payment to Southwest probably to over \$1bn, more if there are further delays and complications. But there is a limit to how much Southwest — and the 50

SOUTHWEST'S CONTRACT WITH BOEING

	MAX 7 FIRM	MAX 8 FIRM	MAX 8 OPTIONS	MAX 8 ADDITIONAL	TOTAL MAXES
2019 Contractual Deliveries	7	20		13	40+
2020 Contractual Deliveries		35		3	38
2020 TOTAL	7	55		16	78#
2021		45			45
2022		27	14		41
2023	12	22	23		57
2024	11	30	23		64
2025		40	36		76
2026			19		19
TOTAL	30	219	115	16	380

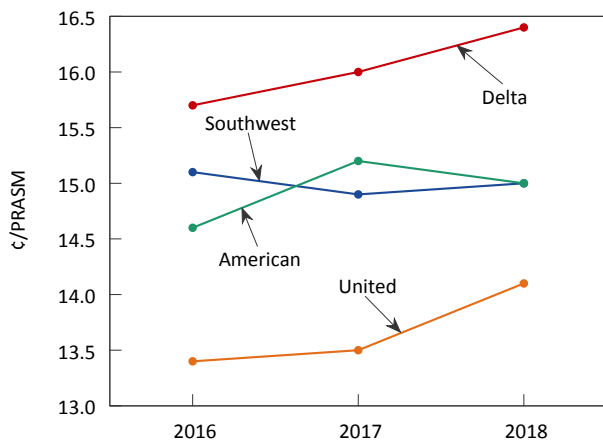
Source: Southwest

Notes: #27 MAXes parked. #16 MAXes Required to be leased in to replace 16 737-300 retirements

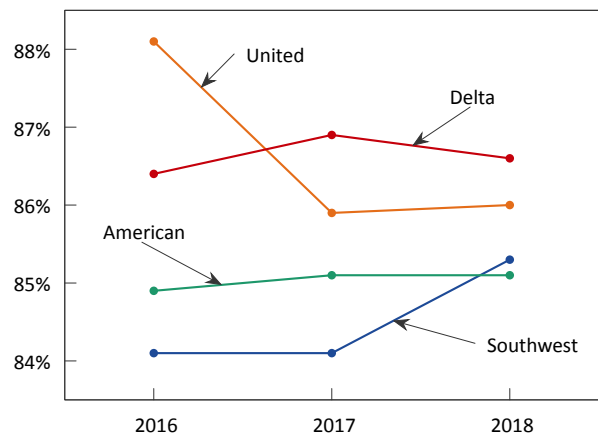
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SOUTHWEST AND NETWORK CARRIERS COMPARED

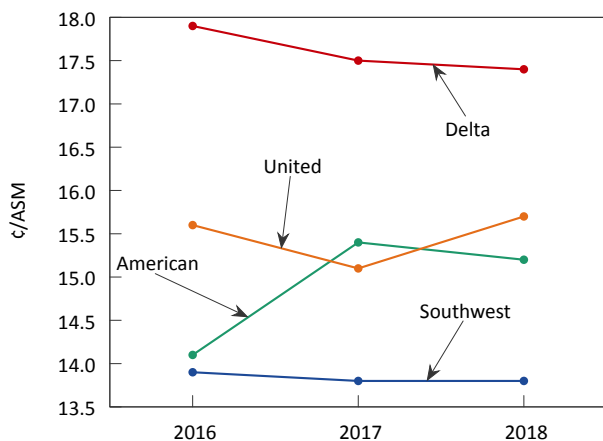
PASSENGER YIELD



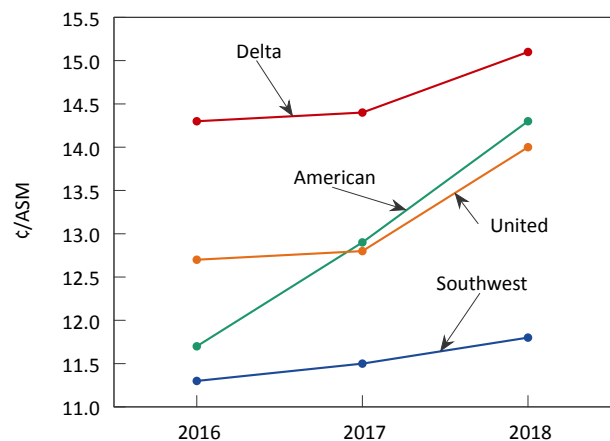
PASSENGER LOAD FACTORS



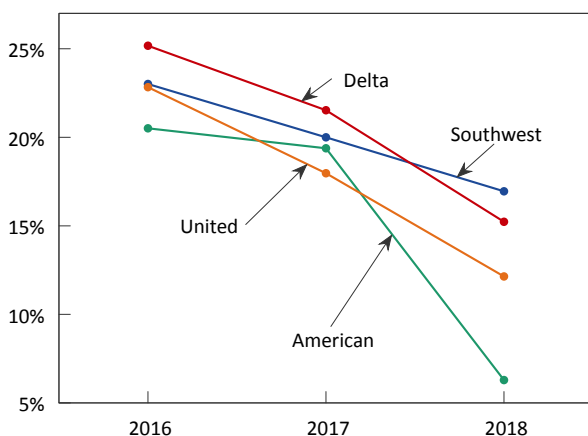
TOTAL UNIT REVENUE



UNIT COST



DOMESTIC OPERATING MARGINS



Source: DoT Form 41.

Notes: Data refer to US domestic operations

Aviation Strategy

or so other operators of the MAX plus another 30 orderers which have not yet taken delivery of any aircraft (that includes Ryanair) — can extract from Boeing in its current financial state.

By the end of 2019 Boeing's negative net asset value on its balance sheet had deteriorated to \$-8.3bn. (As an interesting comparison, Southwest's net asset value on its 2019 balance sheet was \$9.8bn). Boeing is in the process of raising \$10-12bn in debt and looks very likely that it will achieve that, but what is alarming is how fast it has burnt through cash, before paying out for the MAX crash victims (although insurers will cover most of that) and, much more significantly in financial terms, compensating the MAX airline operators and lessors. It may also face cancellations without penalties from some airlines which ordered MAXes speculatively — Norwegian seems to be hinting at that.

Looking at Boeing's recently published cashflow account, which in the current crisis is more insightful than the P&L: in 2019 the manufacturer increased its net debt by \$13bn, of which it used \$7.3bn to pay out divi-

dends and buy back shares (despite reporting a net loss); another \$3.9bn was needed to cover operating and free cashflow shortfalls; and only \$1.8bn was added to reserves. Its cash reserves stood at just \$9.6bn at the end of last year, which is lower than the average end-year balance for the pre-crisis 2012-18 period.

It should be noted that Southwest remains optimistic about the future of the MAX aircraft, convinced that there is nothing fundamentally wrong with the design. Its \$695m profit sharing pay-out to employees included an additional \$125m as an "advance" on the profit levels expected with the MAX returned to service.

Results and investors

Despite the MAX problem, Southwest improved its total revenue between 2018 and 2019, from \$18.76bn to \$22.3bn although EBIT was down from \$3.21 bn to \$2.96bn. Its net profit dipped from \$2.46bn to \$2.30bn, which represents a margin of 10.3%. So Southwest still outperformed the Network carriers on the net margin measure. Delta produced

an 8.8% net margin in 2019, United, 6.1%, and American, 3.1%.

As for the stockmarket, price trend comparisons between Southwest and the Networks have to be interpreted carefully. The graph on page 17 shows the four major carriers starting out at roughly the same point in January 2016 but, whereas Southwest was a mature established business with an exceptionally long profit history, the three Networks were recovery stories, having been close to insolvent, then gone through radical restructurings under Chapter 11 bankruptcy protection and intense consolidation through mergers. Nevertheless, Southwest's share price has tracked very closely the performance of Delta, the most successful of the Networks and has eclipsed its Texan rival, American. United, on this measure, has been the best performer.

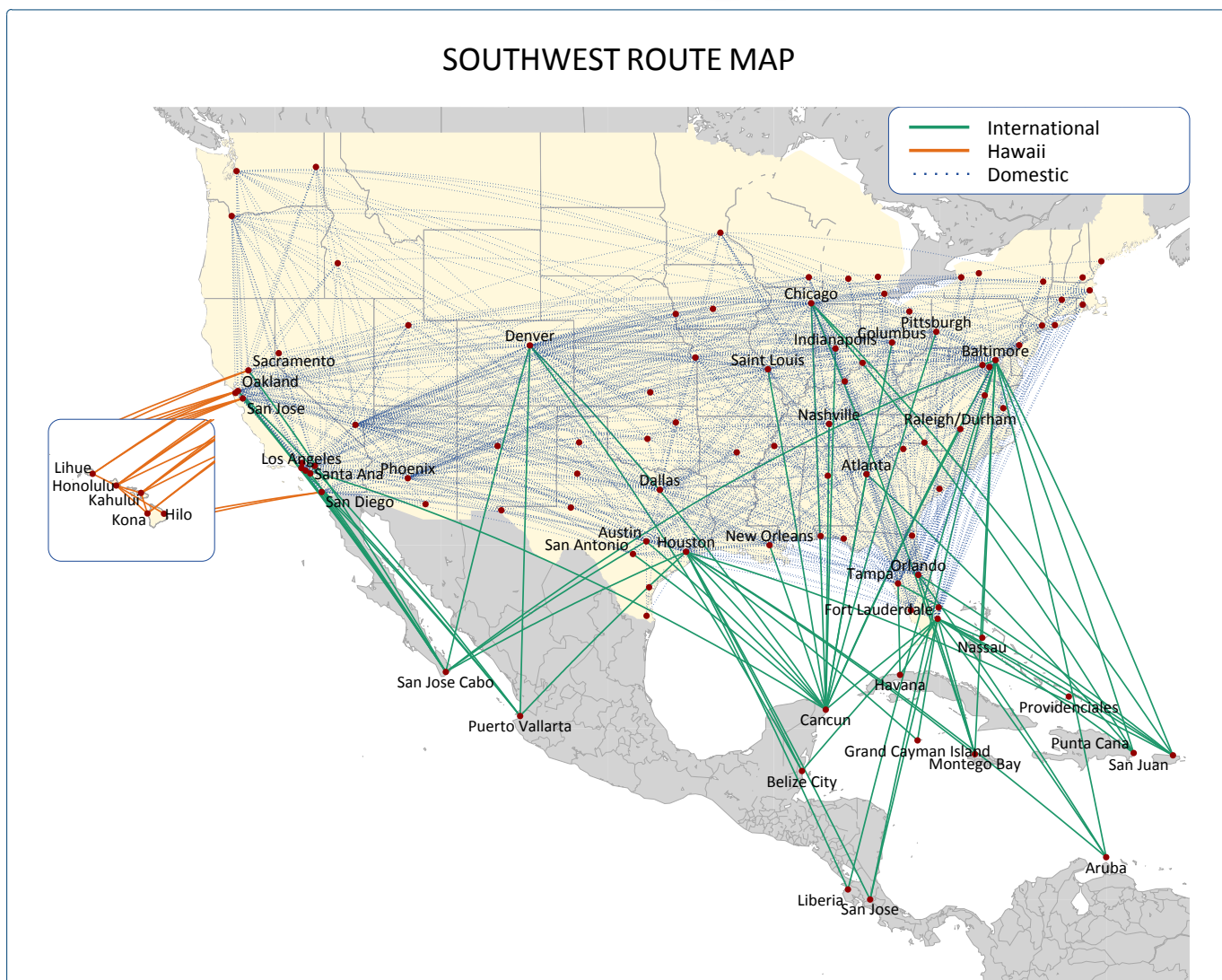
Perhaps more significant is this table left which updates our analysis of the major investment funds' holding in the major US carriers. The five institutional cross-holders, those funds that have investments in all four major airlines, now clearly

INVESTMENT FUNDS OWNERSHIP OF MAJOR US AIRLINES

	\$bn	American	Delta	Southwest	United	Total 4 Airlines
PRIMECAP Management Co.	1.96	1.65	3.89	3.30	10.80	
Berkshire Hathaway	1.25	4.15	2.90	1.93	10.23	
The Vanguard Group, Inc.	1.22	2.67	1.90	1.78	7.56	
SSgA Funds Management, Inc.	0.39	1.17	2.14	0.71	4.41	
BlackRock Fund Advisors	0.53	1.42	1.09	0.98	4.01	
TOTAL 5 CROSS-INVESTORS	5.35	11.05	11.92	8.69	37.01	
% Market cap	44.7%	28.5%	56.5%	31.3%	37.1%	
Other top investors	1.34	3.02	2.02	4.28	10.67	
% Market cap	11.2%	7.8%	9.6%	15.4%	10.7%	
All other investors	5.28	24.75	7.15	14.79	51.96	
% Market cap	44.1%	63.7%	33.9%	53.3%	52.1%	
Market capitalisation (Jan 22)	11.97	38.83	21.09	27.76	99.63	
Market cap Nov 2016	24.10	36.70	23.75	29.40	113.95	

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SOUTHWEST ROUTE MAP



favour Southwest. Holdings by the investor group comprising PrimeCap, Berkshire Hathaway, Vanguard, State Street and Black Rock now account for about 57% of Southwest’s capitalisation against 37% for the four airlines in total. When we first looked at this crossholding phenomenon at the end of 2016, the top seven funds (as there were then) were invested in 38% of Southwest and 32% of the airlines in total.

Southwest compared to the Networks

One of the arguments advanced for allowing the mass consolidation of the US industry was that Southwest

would impose competitive discipline on the merged Legacy or Network carriers, that they would in effect be forced to improve their efficiency to something like Southwest’s level. To illustrate comparison between the Southwest and the three main Networks, the graphs on page 18 trace the key metrics; the data comes from Form 41 and refers to *US domestic only*, so eliminating most of the distortion from stage length and international network differences, and the period, 2016-18 postdates the integration of the Majors through mergers and predates the MAX crisis.

Enhanced by its genuinely friendly service ethos, Southwest’s

product is superior to the Economy offering of the three Networks (and obviously the ULCCs’), and this is reflected in the yield trends (graph on page 18). Despite not having a business cabin, Southwest’s average passenger yields have been almost identical to those of American and to the average of the three Networks.

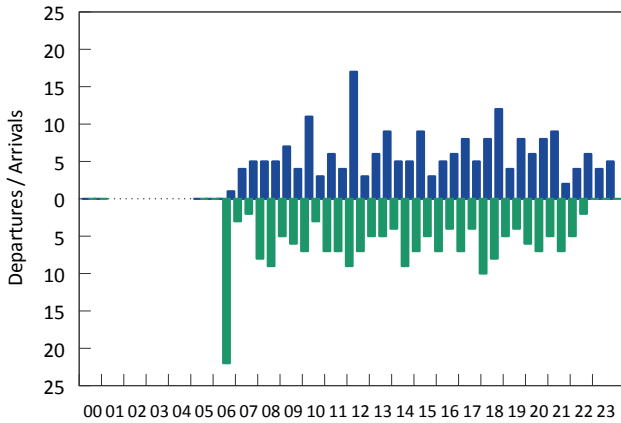
Southwest’s fare policy is very different to that of the European LCCs. There are three tiers:

✈ “Wanna Get Away”, advance purchase fares at the lowest price, non-refundable but payments may sometimes be transferred to future purchases.

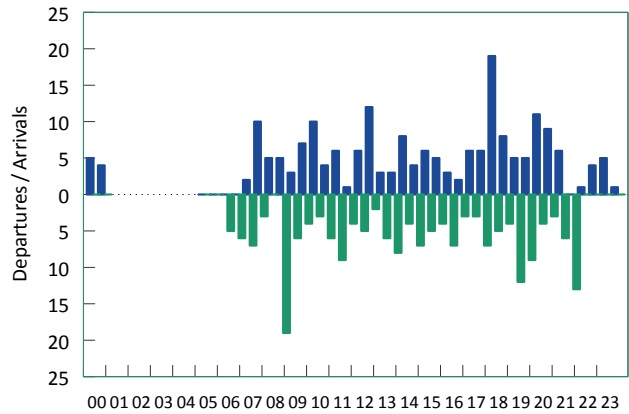
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SOUTHWEST AIRPORT UTILISATION

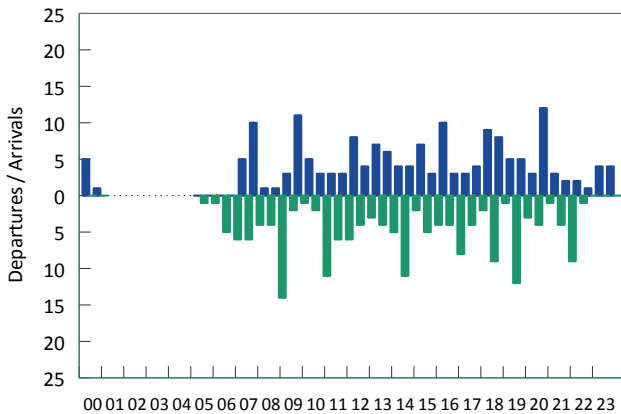
Dallas Love Field



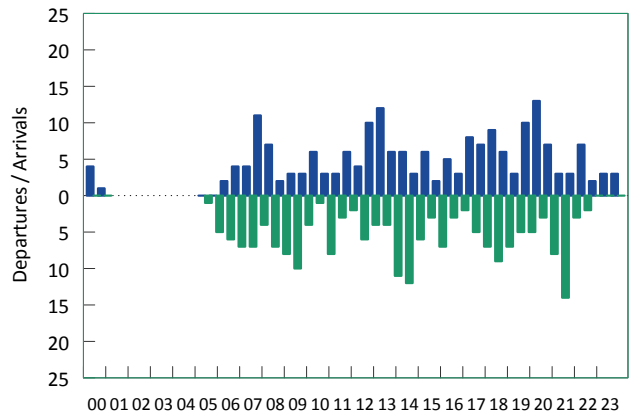
Baltimore



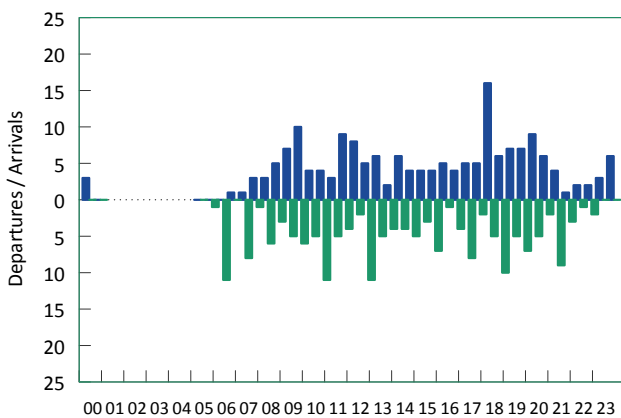
Houston Hobby



Chicago Midway



Phoenix



Note: based on a sample of scheduled daily arrivals and departures in 2020.

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✈️ “Anytime” fares, fully refundable if cancelled.

✈️ “Business Select” fares include priority boarding for the first 15 passengers enabling them to nab the best seats.

All three tiers allow passengers to collect points under the Rapid Rewards FFP. There are *no* fees for cabin bags nor the first two checked bags.

Perhaps surprisingly, Southwest’s load factors are below or the same as the Networks’ (and not in the 90%-plus range that is the European LCC norm). As Southwest doesn’t rely on ancillaries (or doesn’t hit its customers with unexpected fees), its total unit revenues, in terms of cents per ASM, work out about 14% below the Networks’ average.

Its unit costs, on the other hand, have been consistently below the Networks and have remained stable whereas the Networks’ have escalated. By 2018 the difference in terms of cents per domestic ASM between Southwest and the Networks was 18%. Consequently, Southwest’s domestic operating margin in 2018 was 50% above the average of the Networks.

Point-to-point plus

Southwest has adhered to its point-to-point network model throughout its evolution, characterised by using secondary airports wherever possible, rapid aircraft turns of 20 minutes or so, and intensely rapid build-up of frequencies once it starts up a route. It is now the largest domestic airline, by passengers enplaned, with a 22% share of the US domestic market, and is the market leader in 24 metro areas.

The point-to-point model achieves economies through efficient rostering of flying and ground

crew, and through superior aircraft utilisation — Southwest generally gets 1-2 hours more flying per aircraft per day out of its 737s over the narrowbody fleets of the Networks.

Yet a significant portion of its traffic, 23%, is connecting. This is particularly the case at its centrally located airports — notably Chicago Midway and Denver. Southwest manages to capture these traffic flows without compromising its operating model. Whereas Network carriers design waves of flights arriving and departing within narrow time periods, with inactivity in between, Southwest schedules for maximum aircraft utilisation, with the passenger self-connecting. This usually means a longer wait at the terminal for the connection, and baggage has to be collected and re-checked, but Southwest’s passengers appear happy with the trade-off, and the process is made easier by the fact that its gates are usually conveniently positioned together. The graphs on the previous page illustrate Southwest’s maximum airport utilisation throughout the day, reflecting maximum aircraft utilisation.

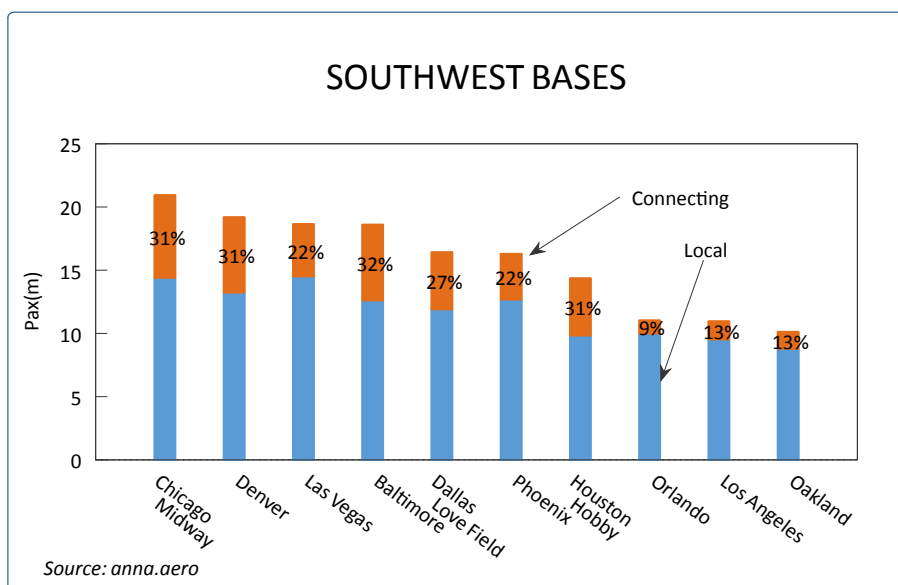
Expansion and speculation

Southwest’s business model depends, in normal times, on growth in capacity of around 5% pa or more, although US equity analysts tend to get panicky about anything over 2-3% which they regard as excessive.

The MAX was intended to accelerate Southwest’s expansion into the Caribbean and Latin America (which account for only about 3.5% of its total ASMs). In the event Southwest’s only major expansion in 2019 was to Hawaii from California and within the islands.

The Hawaii expansion has been “phenomenal” according Thomas Nealon, Southwest President, and has supported the airlines strong California business (it has about 65% of the intra-California market). In typical Southwest fashion it has gone from nothing to 14 dailies from four cities — Oakland, San Jose, Sacramento and San Diego — plus 38 dailies between the Hawaiian islands in a period of 10 months.

Southwest needs to be sure of having the aircraft capacity available to replicate these Hawaiian-type surges (as this market accounts for



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only 2% of Southwest's total network). In this regard, Gary Kelly has stated several times that management are reviewing the risk/reward balance of relying in a single-type fleet. But the practical issues are that Airbus would be unable to provide the delivery slots Southwest would require, pricing might not be as advantageous as at Boeing, and new training and recruitment programmes would have to be agreed with the unions.

The alternative would be a take-over. Total speculation at present but

JetBlue is the closest to Southwest in terms of operating model and product, is an Airbus operator and currently has 79 A321 neos and 70 A220s on order. Or Southwest could look at a ULCC, having had the experience of fairly successfully integrating Airtran which it purchased in 2010. This time the target would be a Airbus-operating ULCC, maybe Frontier, based at Denver, which as 95 A320neos and 85 A321neos on order or Florida-based Spirit with 145 A320 family neos on order. Southwest has itself expressed worries about the

incursion of ULCC s into its markets, so a take-over might address two problems. As for the US DoT and DoJ, it would surely be difficult for these authorities to block such a development, given their approval for all the Legacy mergers.



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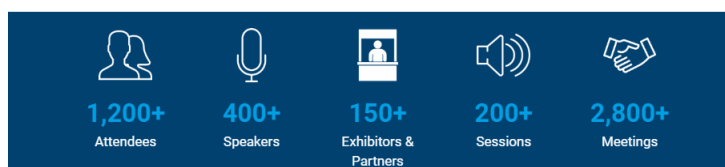
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