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Hybrids: adding service, complexity and cost

We all like to classify data into neat pigeon-holes; in the airline industry as any other. Here we seem to like to think that we have clear definitions of business models: the Low Cost Carrier, the charter operator, the full service "legacy" network carrier. Each is seen to represent a valid business model, with varying levels of pejorative overtones depending on who is speaking. However, it appears that the differentiation is starting to lose clarity, with many carriers starting to take on attributes of others' business models. This has been termed as a move to hybridisation.

When Europe started its initial faltering steps towards airline deregulation a quarter of a century ago, there had been one favoured theory of future development. This suggested that the charter carriers (who then accounted for half the intra European traffic) would move into scheduled and business oriented routes to provide new competition to the flag carriers; the network flag carriers would be forced into lowering costs to meet the new competition while battling it out to create pan-European networks; and that there might have been room for new entrants at the bottom.

In the end it did not work out quite as this theory suggested. The charter operators on the whole (after Air Europe tried and failed) remained wedded to their assumed captive tour operator markets - the only one in the end to have transferred successfully into scheduled operations being Air Berlin. Almost all the impetus of new competition was provided by new entrants - led by Ryanair and easyJet - and from the beginning of the 2000s developing pan-European pres-

BUSINESS MODEL EXTREMES

Criterion	LCC	Hybrid	Network Legacy
Network	Short-haul, point to point	<->	Inter-regional connecting
Airports	Secondary / tertiary airports	<->	Primary / congested airports
Fare Structure	Offers same fares to all customers, handful of fares	<->	Differs fares by customer/channel; various restrictions
Partnerships	No code sharing or interlining	<->	Code sharing and interlining
Sales & distribution	Direct sales only via website	<->	Distributes through GDS
Operations	Operates single aircraft model; top quartile in cost efficiency	<->	Mix of aircraft models; mid-high range cost performance
Ancillary sales	All "optional" charges unbundled	<->	Services provided in ticket price
Customer care	All passengers treated equally	<->	Preferred customers given benefits

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ence with bases spread through the major countries. The legacy flag carriers have indeed been forced to change, through cost cutting and consolidation, but with concentration on the power of the long-haul network hubs. None of these have been able (nor perhaps has wanted) to develop a pan-European presence - and attempts to establish bases of operations outside their home countries (whether BA trying with DBA, SAS with Spanair, KLM with Air Littoral or latterly Lufthansa with LH Italia) have failed miserably.

The beauty of the Low Cost model is its simplicity (adhering to the “Keep It Simple Stupid” or KISS principle of pioneer Southwest):

• High seating density
• High aircraft utilisation
• Single aircraft type
• Low fares including exceptionally low promotional fares
• Single class configuration
• Point-to-point services
• No (free) frills
• Short-/medium-haul services
• Frequent use of secondary/tertiary airports
• Quick turnaround

Ryanair took the model to a new level:

• Fly to airports which want your services and charge less (or pay you)
• Minimise all controllable costs and make as many costs variable as possible
• Charge fares to maximise load factor
• Internet-only booking
• All “optional” services unbundled from the fare and charged separately.

All this on the basis that air transport is a commodity and that in a commodity market the lowest cost provider will win. In one sense the extreme low cost model works on the basis of providing the capacity to fit in with operational considerations, assuming that the traffic will come at a price that makes commercial sense, or the route will be closed.

In contrast some of the problems of the legacy network model relate to its very complexity. Few long-haul routes make sense on pure real O&D traffic terms and the network model requires a combination of short- and long-haul flights to provide feed in order to maximise potential demand. This requires a coordination between the disparate long- and short-haul route networks, fleet types, and significant additional handling costs to cope with transfer passengers and bags. Implicitly, for historical reasons, transfer could also use the deepest discounts against tariffs limiting the availability for marginal pricing on point to point demand, while also for historical reasons all services were deemed to be included in the ticket price. In one sense the legacy model may also be said to provide its services on the basis of an estimation of what the customer actually wants.

The hybrid model

Increasingly the new entrant LCCs have been trying to find a sense of differentiation - leading to the “hybrid” model (see table, page 1). One of the first elements of this is to eye the potential of yield uplift by providing a service targeted at “business” passengers. This leads to a traditional view of having to offer a minimum morning and evening rotation to each destination (with a mid-day infill) to be attractive - while the origin and destination airports need to be relatively mainstream for business needs. In addition, there is a requirement to have a presence in the global distribution systems (to gain access to corporate bookings and travel agent distribution), and create a marketing team to develop relationships with corporate accounts. All this of course adds to complexity and cost.

Another brilliant idea is to add the concept of providing network connectivity. Each of the large LCCs operate services at their bases which potentially could provide intra-line connections; but the last thing they want is to allocate cost to their operations by guaranteeing that a passenger and her luggage will achieve that connection (or indeed providing compensation if that connection is missed). Where connecting services are offered it is either left to the individual passenger to organise herself or a charge is generated; but unlike the legacy model there is generally no attempt to guarantee minimum connecting times. Inter-line connections on the other hand start to get much more complicated. These require GDS involvement, for-

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EUROPEAN LCC HYBRIDISATION

		Ryanair	Wizzair	easyJet	norwegian	airBerlin	Vueling	flybe	Aer Lingus
Hard Complexities	Pure KISS	X	X						
	Secondary/tertiary airports	X	X					X	
	Single aircraft type	X	X	X			X		
	Primary / congested airports			X	X	X	X		X
	Corporate accounts			X	X	X	X	X	X
	GDS/Travel Agent distribution			X	X	X	X	X	X
	Transfer traffic				X	X	X		X
	FFP				X	X			X
	Code share					X	X	X	X
	GBA (Global Branded Alliance)					X			
	Class/Seat differentiation					X	X	X	
	Long haul				X	X			X
Soft Complexities	Loyalty card (paid for)	X	X				X		
	Special seat allocation (paid for)	X	X	X	X	X	X	X	X
	Full plane seat allocation			X	X	X	X	X	X
	Priority boarding			X					
	Credit card	X	X	X	X	X	X	X	X
	Family discount						X		
	In house bank				X				

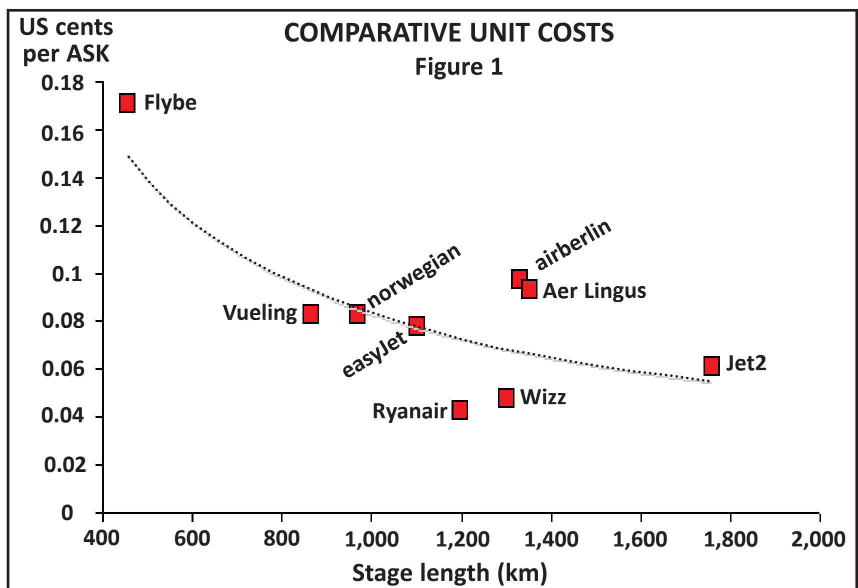
mal relationships with other carriers, FFP and loyalty programme coordination.

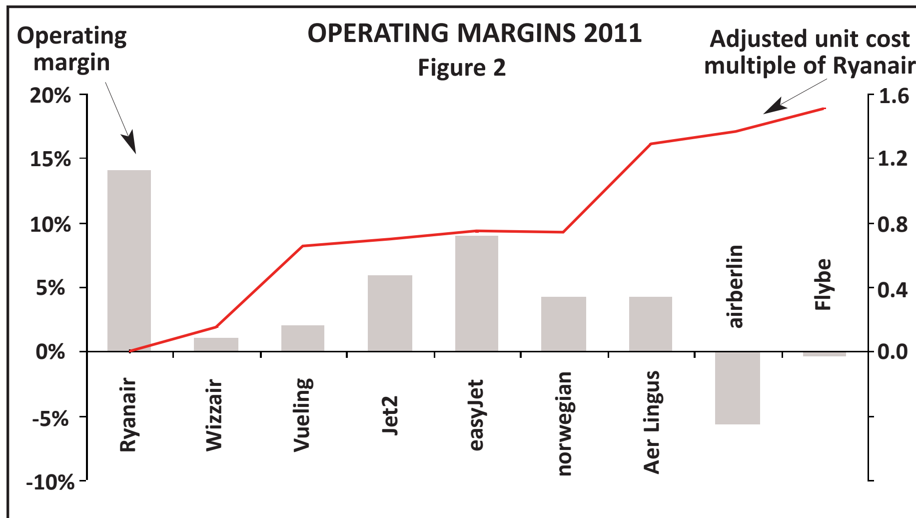
Once you commit to the idea that you need to attract corporate business accounts you start to get the idea that you need to retain them through some form of loyalty programme - if only because the legacy competitors do. Most of the European LCCs have created an opt-in charged-for programme with defined benefits. Some have even been offering uncharged-for frills for those willing to pay higher "flexible" fares, effectively providing an on-board class differentiation in a single class cabin (see table, above).

Some of these aspects of the departure from the KISS principle have limited or no impact on costs. These we might describe as "soft" complexities and may include items such as paid for special seat assignment, full-plane seat allocation, priority boarding, branded credit cards - all of which can be either cost neutral or self financing.

Others - which we might call "hard" complexities - are those items that impose a cost penalty against best in class if not absolutely; and here the operator's hope is that there will be a sufficient improvement in yield to offset the effective increase in costs required to provide or use the service. These will include the use of primary airports, different aircraft types/sizes, access to global distribution services, provision of intra-line (or transfer) services, frequent flyer or loyalty plans, interline or code share agreements, membership of global branded alliances, class differentiation, and operation of long-haul services.

Quantifying the real net benefit of this hybrid model is not easy. Various inconclusive studies have been conducted in the US mar-





ket just taking increased distribution and sales costs as one element of the change from a pure low cost model, and trying to find a resulting improvement in margins in later reporting periods (although these are possibly tainted as having been authored for the distribution systems themselves). The long term net benefit if any should be seen in the airline's operating margins; but there are many elements outside the control of the carrier that can affect any one year's returns.

In Figure 1 (page 3) we show a chart of the unit costs of the main European LCCs against average seat stage length. As usual there is an inverse logarithmic relationship between average stage length and achieved unit cost.

Ryanair and Wizz - the only two in this sample that remain true to the “pure” KISS principle - lie well below the curve; Flybe (with its regional aircraft types and very short sector lengths) not surprisingly is well off to the top left; the hybrid carriers easyJet, norwegian and Vueling sit bunched fairly close together (with both Vueling and norwegian seemingly showing an effective unit cost advantage against easyJet); while airberlin and Aer Lingus - both with long-haul services and more remnants of their legacy histories - appear significantly out on a limb.

In Figure 2 (above) we show a chart of the 2011 operating margins for the same carriers. We have adjusted unit costs to account for differences in stage length in order to compare with the sector paragon Ryanair; the line represents the stage length adjusted unit costs as a multiple of Ryanair's. The main conclusion from this chart is that the two largest LCCs (Ryanair and easyJet) have the largest margins; and that perhaps easyJet's departures from the KISS principle have reduced its ability to generate margins a little.

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European hybrid evaluation

In the following sections we show spider charts for each of the main players allocating factors from the 'Business Model Extremes' table (see page 1) as a departure from the pure KISS principles in order to try to evaluate the hybrid nature of each operation's model. The area shown by the resulting solid octagon represents the stage length adjusted unit costs for each carrier in 2011.

Ryanair

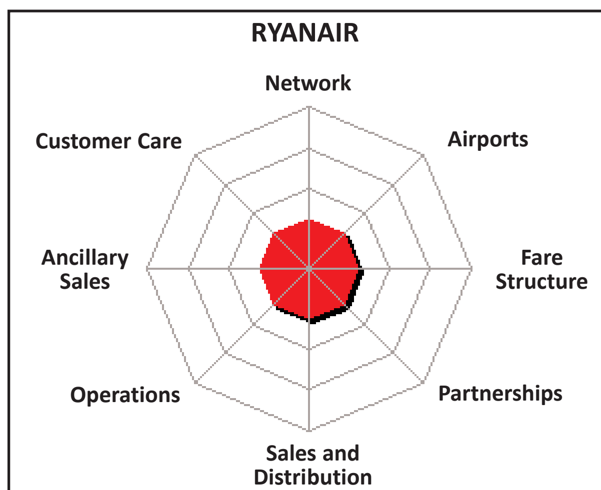
Ryanair has remained adamant in its pursuit of the low cost model and remains in the forefront of developing the model. The prime underlying philosophy is that the airline industry is a commodity business devoted to carrying passengers and bags from A to B for the cheapest possible use of time and money - and that in the long run the lowest cost provider in a commodity market will win. (At an analysts' results meeting recently someone asked about passenger differentiation - i.e. between business, VFR and leisure. The charming O'Leary characteristically stated they didn't know nor care; but then added that the most valuable passengers were probably VFR traffic going to funerals.)

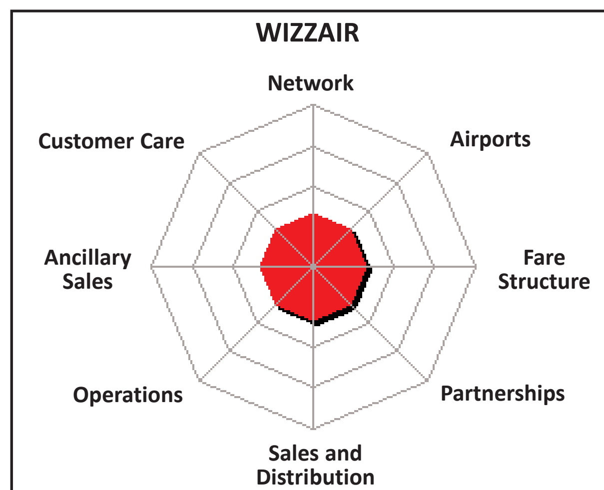
Ryanair does have a big advantage in having its original base in Ireland with a natural sea boundary and a large diaspora; a (possibly waning) advantage from its advantageous acquisition of new 737s in the early noughties; it is also remarkably brutal in its pursuit of lowest costs possible. It has also been one of the most active in churning non-performing routes: as pointed out at Terrapinn's World Low Cost Airlines Congress last month, in the last year it introduced 300 new routes (23% of the total) and closed 154 (13%); while it also grounded 80 aircraft last winter increasing its seasonal differentiation, giving an annual peak to trough of 28% (scheduled to grow to 38% this winter). As its growth rate declines (with no new aircraft orders after this year) it will no doubt concentrate on developing yield performance on existing routes without any need to change its model.

Wizzair

Wizz is like Ryanair in keeping to the KISS principle - single aircraft type, secondary and tertiary airports. It seems to have a unit cost only 15% higher than Ryanair's on a stage length adjusted basis.

It also appears to have a high rate of





churn in the routes it operates. It does not have the same strength of underlying route demand and does not appear to generate the revenues.

The company is still privately held and does not publicly publish its financial results: nevertheless in 2011 its Companies House filings show a group operating profit of €5.8m, a paltry 1% margin: and this year's battle with Ryanair in Budapest following the demise of Malev is unlikely to have helped. It has recently taken the LCC joy of charging fees to change customer behaviour to another extreme – every bag, it seems, is subjected to the inflexible size/weight test, resulting in numerous arguments at boarding. The solution: Wizzair from the end of October charges a €10 fee for large carry-on bags.

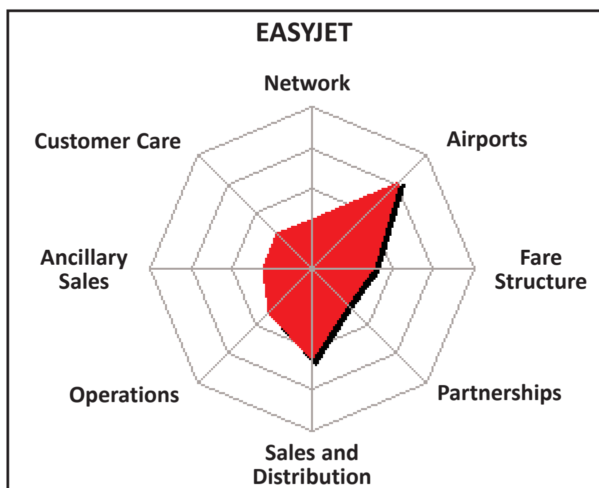
easyJet

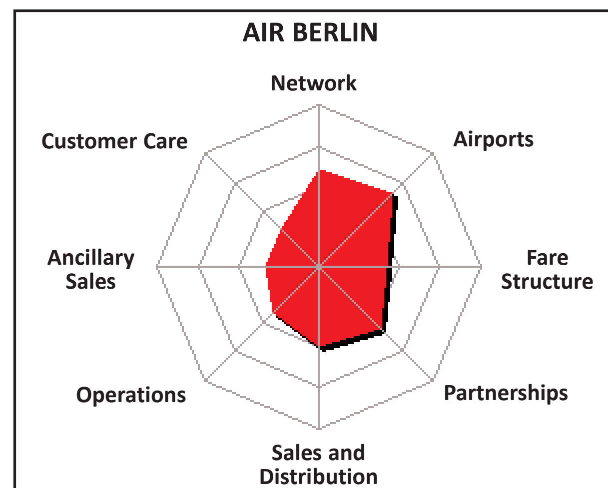
easyJet has increasingly aimed to differentiate from Ryanair primarily by choosing to enter into direct competition with the legacy carriers at more primary airports - thus attacking Air France at both Roissy CDG and Paris Orly; walking into the void at Milan Malpensa on Alitalia's retreat to Rome; building a main UK hub at constrained (but relatively attractive) London Gatwick; and destinations into the main airport at major capital cities.

It has also tried increasingly to develop business oriented routes, and has opened access into global distribution systems to encourage bookings from corporate clients, built sales teams to win corporate accounts, and offers differentiated "flexible" fares. Its latest move has been to test (and soon to roll out system-wide) full plane seating allocation: its preliminary tests on a handful of routes demonstrated to its satisfaction that there were to be no cost disadvantages in terms of aircraft turnaround, aircraft boarding times or access to boarding gates. While it may miss out on charges for speedy boarding, this will be more than compensated for by the increased ability to charge for seat allocation prior to check in; and further reduces the perceived differences in product quality from its major legacy competitors.

airberlin

airberlin is the archetypal hybrid carrier and one of the few charter operators to have made a reasonably successful transition to scheduled operations. A full charter carrier, it started offering seat only sales in the late nineties and expanded into domestic and intra-European scheduled operations in the last decade through the acquisition of dba; and then into long-haul with the ill-timed acquisition of LTU. It has been increasingly moving away from low cost ideals; partly sitting it what has been





described as a cosy domestic duopolistic relationship with Lufthansa it has been strongly building corporate relationships and contracts to underpin its "business" offering; along with the baggage of frequent flyer programmes and differentiated ticket tariffs.

It recently joined the oneworld global alliance with a series of code shares among other things feeding British Airways at London Gatwick. It accepted Etihad as a major shareholder and recently signed a series of code share agreements with the Middle East carrier through Abu Dhabi (at the same time as Etihad signed up with Air France). It is one of the few to believe that intra-European transfer hubs can actually work profitably - with major hubs in Palma di Majorca and Berlin (and a failed hub at London Stansted).

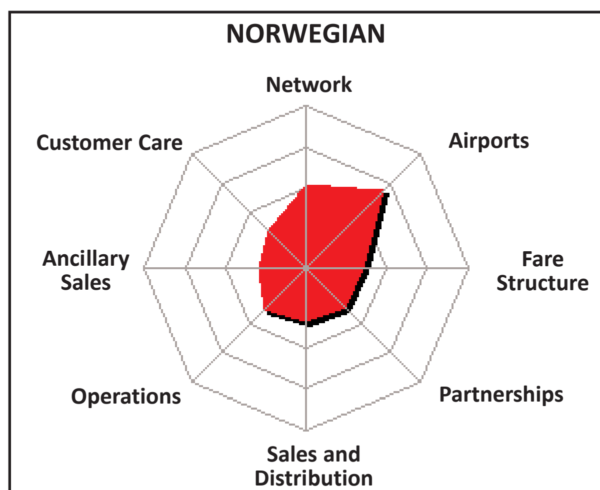
norwegian

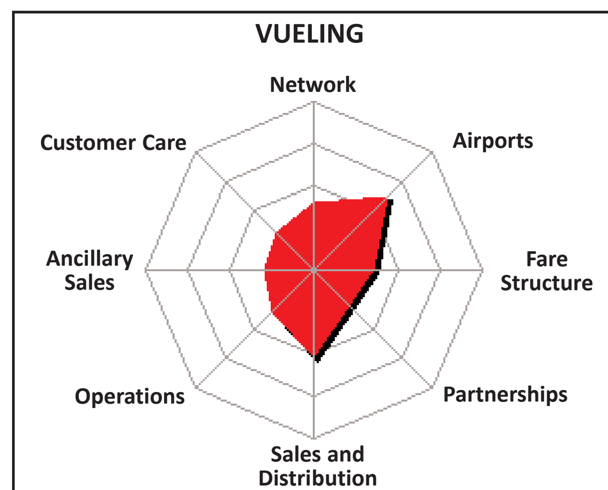
norwegian appears a special case. It seemingly aims to take over as Scandinavian airline of choice from the three nations' flag carrier SAS; and helped by the Norwegian nation's very high propensity to travel (and the strength of the local economy). It is one of the few to actively promote transfer traffic throughout its network (although it does add a charge for the privilege) and with the future deployment of 787 Dreamliners from next year (it has eight on order) will be starting a major foray onto long-haul routes (it already operates one of the longest European LCC routes from Oslo to Dubai on a 737). It is further departing from single aircraft type operation - having over 200 737s, 737Max and A320s on order. The company emphasises that the next stage for LCC development in their view was long-haul. Norwegian also has a loyalty frequent flier system - closely linked with the associate in-house bank and credit card (mostly because FFPs within Norway were forbidden following SAS's acquisition of Braathens in the early 2000s). Meanwhile the company has recently announced an expansion of bases into Malaga and Las Palmas (primarily targeting Scandinavian travel) - at a time when others are retreating, following the Spanish plans to increase airport charges in real terms.

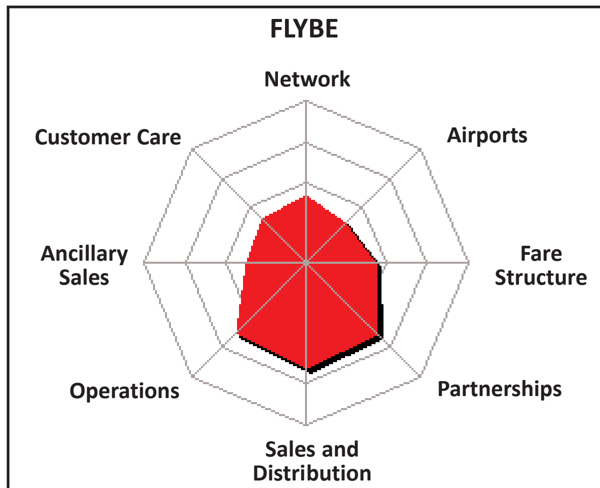
Vueling

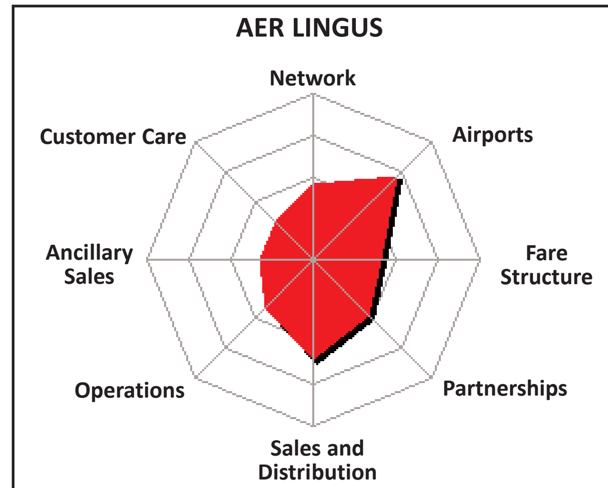
Vueling, the Catalan "flag carrier" is also increasingly adding complexities to its model. Codeshare agreements with parent company Iberia at Madrid may have become less relevant since the establishment of Iberia Express; but Vueling has signed interline agreements with BA and is looking to expand further such agreements. It has its own FFP and links into the Iberia programme.

It increasingly targets business traffic;









and has a quasi-business class offering in the first one or two rows on board (no-one sitting the middle seat, free in-flight service). It actively markets intra-line connections through its main base at Barcelona and (like norwegian) offers baggage transfer on "Connecting tickets" but without a nominal charge.

Flybe

Flybe is a regional legacy carrier that has adopted some of the aspects of the low cost pricing and yield management model rather than a low cost carrier per se. Its fleet type and very short sector length automatically generates a relatively high unit cost. It also has significant partnerships with Air France and Finnair with a high degree of inter-line code shares, and (on Flybe Finland operations) as an affiliate of the oneworld alliance.

Aer Lingus

Aer Lingus is the only Legacy network carrier successfully to have moved to the low cost principles - all because of the severe pressure provided by Ryanair in its home market. It still operates long-haul routes and needs the feed; with its own intra-line operations at Dublin, a comprehensive marketing deal with JetBlue in the US, and through code shares (including Etihad, British Airways and KLM) at the other ends of routes. It maintains its own FFP but nevertheless abandoned its membership of oneworld as being far too costly. Of course it is currently under even greater pressure from Ryanair this time on a corporate front as a potential acquiror.

There is a coalescence of the airline product from the other extreme in Europe, mainly involving the legacy network carriers' adopting the one-way low entry non-refundable fares of the LCC model, and an increasing move to unbundling the product (although the majors are yet to charge for hold bags, they have introduced credit card booking fees - in the UK market at least - and some are charging for in-flight refreshment service). In addition, both Lufthansa and Air France are increasingly using their own in-house "low cost" brands to attempt to reduce their mainstream short-haul losses.

Whichever way you look at it the airline industry remains a highly competitive commodity market. These increasing trends to add complexity to the LCC model may help to differentiate the product and improve yields sufficiently to generate stronger margins; but there does not seem to be proof.

By James Halstead
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The unbundling process around Europe

	Online Check-in	Airport Check-in	Priority boarding	Luggage	Advanced reserved seating	Cabin Service	Booking Fee
Aer Lingus				£12 one bag	£5-£14	optional paid for	£6 per flight per pax
air berlin				"€15-€50 JustFly fares 1 bag free Fly Classic 2 bags free Fly Flex"	"€10-€20 Assigned w/o charge at check-in"	optional paid for	"€7 per booking (German/Austrian direct debits free)"
BA				one 23kg bag free	"Free at check in, £8 prior to check-in"	free	£4.50 per pax (debit cards free)
easyJet				£9-£16 per 20kg bag	"£3-£12 (Free for flex fares and easyJet Plus) Assigned w/o charge at check-in"	optional, paid for	£9 per booking +2.5% value on credit cards
flybe				£13-£31, depending on weight	"£6.50-£15 Assigned w/o charge at check-in"	optional paid for	£11 per total booking
jet2	"no bags - free 1+ bag £6"	"no bags - £9 1+ bag £10"		"1st bag from £8, 2nd bag from £16, 3rd bag from £24"	"£2.49-£4.99 Assigned w/o charge at check-in"	Adult meals from £5.99 pp	"Credit cards -3.6%. Debit cards - free. Other (paypal) - 2%"
Lufthansa				one 23kg bag free	free at check in		£4.50 per booking (debit cards free)
Monarch	Free when seat purchased	Free		"£16-£19 20kg purchased online, £25 at airport+£10 for 23kg"	"£6-£25 Assigned w/o charge at airport check-in"	"£8-£9 meals, optional paid on board"	"4% per booking, minimum £5 Debit cards and paypal free"
norwegian				"£5-£10 (£10-£12 at airport)"	"£5-£9, Free for flex-fares"	optional paid for	"£4.20 credit cards Debit cards free"
Ryanair	"online check-in only £6 (aka booking fee)"	£60 boarding card reissue fee	£5.00	"1st bag £15-£40, 2nd bag £35-£50 when booked online (£60-£130 and £105-£150 at airport)"	£10.00	optional paid for	£6 per person per flight
SAS				one 23kg bag free	free at check in	optional paid	no charge
SWISS				one 23kg bag free	free at check in	free	"£4.50 per pax Debit cards free"
Thomas Cook				£16 per 20kg bag	"£7.50 free at check in"	"£6 adult meals £3 child meals" optional (with conditions)	£4 per person per flight
Thomson				"£15 per 20kg bag If bought online"	"£12-£20 Assigned w/o charge at check-in"	optional paid for	"2.5% per transaction minimum £4.99 Debit cards no charge"
vueling				€12-€22	"€3-€14 Duo seat €60 Assigned w/o charge at check-in"	optional paid for	"€11-€13 credit/charge cards €7.50 debit cards"
Wizz	No charge	"£6 if paid online, £12 at the airport"	"£3 online £6 at the airport"	"£13-£21 online, £38 per bag at airport, £51 per bag at gate (+£9 large cabin bag)"	"£7 online, £14 at the airport"	optional paid for	£7 credit cards per pax per flight

Note: Charges for ex-UK flights. Charges (especially credit card fees) in other European countries may vary for the legacy carriers.
Source: *CAA and company websites*

Delta: Will it continue to outperform?

Delta, the second largest US carrier, is on a roll: outperforming its peers in terms of RASM and profit margins, paying down debt, getting into the oil refinery business and snapping up minority equity stakes in Aeromexico and Gol. But will the intriguing new strategies pay off? Can Delta sustain its lead in the longer term when key competitors overcome their current challenges?

Delta is fortunate in that, with the integration following the successful 2008 merger with Northwest long behind it, it has been enjoying a period of relative calm. Unlike the other two of the "US Big Three", it has no major dramas or risks to deal with.

American is in Chapter 11, trying to reorganise and having serious problems with its pilots. It has lost corporate share in recent months due to extensive flight delays and cancellations – a result of pilot sick calls, maintenance issues and other problems.

United has had terrible merger integration problems this year, resulting from an over-ambitious systems switchover in March. It has alienated business customers and is likely to be the only sizable US carrier to see earnings dip in 2012.

Even Southwest - now Delta's largest competitor in Atlanta as a result of its acquisition of AirTran - has not been in a position to give Delta a run for its money because it is still in the process of integrating AirTran and combining the two networks. Delta executives noted recently that the Southwest/AirTran combine was "almost 50% down in capacity" from AirTran's peak in Atlanta and that "they are rationalising more and more cities". Therefore, while feeling some adverse effects from aggressive fare sales, Delta appears to be temporarily gaining market share also from Southwest.

Of course, Delta's larger global route network resulting from the Northwest merger, dominant positions at all of its hubs, major expansion at New York LGA this year, growth and investments at JFK, solid positions on transatlantic and transpacific routes, and product enhancements have all helped give Delta strong momentum for attracting business traffic and gaining corporate market share.

Delta has outperformed its peers in terms of unit revenues for six consecutive quarters. According to BofA Merrill Lynch, its 3% PRASM increase in this year's third quarter outpaced industry gains by two points.

Delta is earning solid profits and generating significant free cash flow. Its 10.2% ex-item operating margin in the third quarter was among the best in the industry. 2012 will be a third consecutive solidly profitable year for the carrier. As of October 24 (before any impact from Superstorm Sandy), Delta was expected to earn a 6-7% operating margin and a 4-5% ex-item net margin in 2012.

This period of relative calm at Delta has enabled Delta's management to focus on managing the airline to the best of their abilities. The results have been impressive.

First, Delta has been the industry leader in capacity discipline. Its dramatic 10% capacity reduction on the transatlantic last winter season was instrumental in maintaining healthy RASM growth and profitability in European operations.

Second, Delta is determined to maintain its CASM advantage. On the non-fuel side, it is targeting $1bn of structural cost savings over the next two years. Key measures include a domestic fleet restructuring, which will see a dramatic reduction in 50-seat RJs in favour of operating more cost-effective mainline aircraft and larger RJs.

As part of that programme, Delta recently shut down its regional subsidiary Comair and is currently in talks with

Bombardier and Embraer on a potential order for up to 70-plus seat RJs.

Third, in the spring Delta's management and pilots negotiated a new contract in a record two months. It is an industry-leading deal but one that gives Delta significant flexibility to restructure its fleet and operations.

It appears to have been a carefully calculated move that also avoids the misery of the kind of protracted difficult labour negotiations that AMR and UAL have been mired in for years (though United did finally secure a new pilot deal in July). Delta is known for its excellent labour relations.

Fourth, Delta has found an interesting potential solution to reducing and limiting volatility in fuel prices: acquiring its own oil refinery. The airline predicts that the Trainer facility in Pennsylvania will save it $300m-plus annually on fuel expenses.

Fifth, in the past year Delta has acquired small equity stakes in Aeromexico and Gol, to strengthen its position in Latin America and to facilitate cost reductions. In August Delta and Aeromexico announced plans to construct a jointly operated MRO facility in Mexico.

Sixth, apart from such strategic (and relatively modest) investments, Delta is exhibiting remarkable capital spending restraint, despite having a relatively old fleet and a much smaller orderbook than its peers.

Seventh, Delta is making great progress in deleveraging its balance sheet. With lease-adjusted net debt amounting to $11.9bn at the end of September, Delta is now on the home stretch in reducing that figure from $17bn at year-end 2009 to $10bn by mid-2013.

2013 is likely to see much discussion on what Delta's next capital priorities might be after the $10bn debt reduction target is achieved. Will there be further debt reduction? Or will Delta pre-fund pensions, buy back stock or introduce dividends? Or will it be time to start fleet renewal in earnest?

Outperforming in RASM

Delta has enjoyed solid unit revenue growth across all entities in recent months. According to BofA Merrill Lynch, the PRASM outperformance has been the greatest on domestic and transatlantic routes. The analysts predicted that Delta's PRASM would continue to outpace the sector in 2013, especially in light of its increased corporate share in New York.

One of Delta's biggest projects this year has been facility improvements and major expansion at New York LGA, following the earlier slot swap with US Airways. Under the highly unusual and brilliant deal, which took years to pass regulatory muster, Delta gained 132 slot pairs at LGA, while US Airways got 42 slot pairs at Reagan National, rights to operate additional daily flights to Sao Paulo from 2015 and $66.5m in cash. The airlines were required to divest 16 slot pairs and LGA and eight at National. The deal involved Delta taking over most of US Airways' Terminal C at LGA, to create an expanded two-terminal facility at the airport, and spending $100m on renovations and upgrades over two years.

The deal will enable Delta to double its destinations from LGA, significantly strengthening its position in the New York market amid intensified competition (from United Continental, American, JetBlue, Southwest and others). Delta will be creating LGA's first true connecting hub, with 260-plus daily departures to 60 cities. Given that LGA is New York's preferred airport for domestic business travel, the positive implications for RASM are obvious.

The early results are highly encouraging. Delta reported in July that it had seen a 2% margin improvement with the initial 18% increase in capacity at LGA. In October Delta executives said that they were pleased that LGA PRASM had remained unchanged in the third quarter despite a 42% capacity increase. The 2012 summer schedule already gave Delta about 50% of daily departures at LGA. The terminal renovations are due to be completed in the current quarter.

With respect to international RASM and future growth, Delta is benefiting, first, from the new $1.4bn state-of-the-art

international terminal that opened at its Atlanta home base in May 2012. Second, after long been handicapped by its ageing JFK terminal (T3), Delta, which is the leading US carrier on the transatlantic, will be able to move its international operations to a redeveloped and expanded T4 in the spring of 2013. This first phase of a five-year $1.4bn project will give Delta nine new international gates, a passenger connector between T4 and T2 (which Delta will retain for domestic operations) and expanded baggage claim and customs areas. The many benefits to customers will include faster transit times and one of the largest Sky Club lounges in the Delta system.

With the help of its JV and SkyTeam partners, Delta has been aggressive in culling poorly performing transatlantic flights over the past year. It has reaped major benefits from that strategy. The 10% ASM reduction in late 2011 led to double-digit PRASM growth through the winter season, despite Europe's economic weakness. The 5% ASM reduction in this year's September quarter led to a 3% PRASM increase, despite an adverse economic outlook and a weak Euro, and contrasting with the industry's 0.7% PRASM decline on the transatlantic (according to BofA ML). Somewhat curiously, Delta has benefited from a strong European point of sale; its executives theorised that "European multinationals which are having trouble doing business in Europe are coming to the US to do business".

Even though the transpacific was Delta's best-performing entity in the third quarter, the 6% PRASM increase there lagged the sector by three points. Delta's formidable Japan franchise is profitable but has seen increased competition, and the airline is somewhat handicapped for not having a partner in Japan. Delta has dropped its new Detroit-Haneda route and is seeking to transfer those slots to Seattle, where it has been building transpacific operations with the help of its partner Alaska Airlines.

In addition to gaining new corporate contracts and attracting more business traffic generally, Delta is getting good results from premium up-sell programmes and other revenue initiatives. The past two years' product improvements have included a new "Economy Comfort" section on aircraft, increased first-class seating domestically, interior upgrades, WiFi, full flat-bed seats in the Business Elite cabins and FFP enhancements.

Analysts made the point in Delta's 3Q call that the airline may have to give up some of the recently-gained corporate share after a reorganised AMR emerges from Chapter 11 next year, possibly strengthened by a merger. That may happen, though Delta executives felt that most of the gains have been "truly new share" resulting from Delta's own efforts and that the gains from American have not been significant.

Like other US airlines, Delta is in favour of further industry consolidation, including a potential merger involving AMR, because it would help maintain industry capacity discipline and a rational pricing environment. Of course, as CEO Anderson put it, Delta believes that it has "competitive advantages that will allow us to continue to sustain the distance that we put between ourselves and the rest of the industry".

Cost cutting imperative

Because Delta and Northwest restructured in Chapter 11 relatively recently (both emerged in the spring of 2007), the airline that resulted from the October 2008 merger has enjoyed a cost advantage over its peers. However, the CASM advantage has narrowed in the past couple of years due to pay increases to integrate labour, product and service upgrades, the ageing fleet and the capacity cuts. Delta's system capacity is slated to fall by 3-4% this year, after a 0.2% decline in 2011. In the third quarter, Delta's non-fuel CASM rose by 5.6% - more than double the industry increase. The airline warned that cost pressures would continue into the first half of 2013.

This year Delta has been talking about a

new $1bn programme of structural cost initiatives aimed at generating savings from the second half of 2013. The measures aim to offset cost inflation in other parts of the business and produce "comprehensive structural changes" to the way Delta does business.

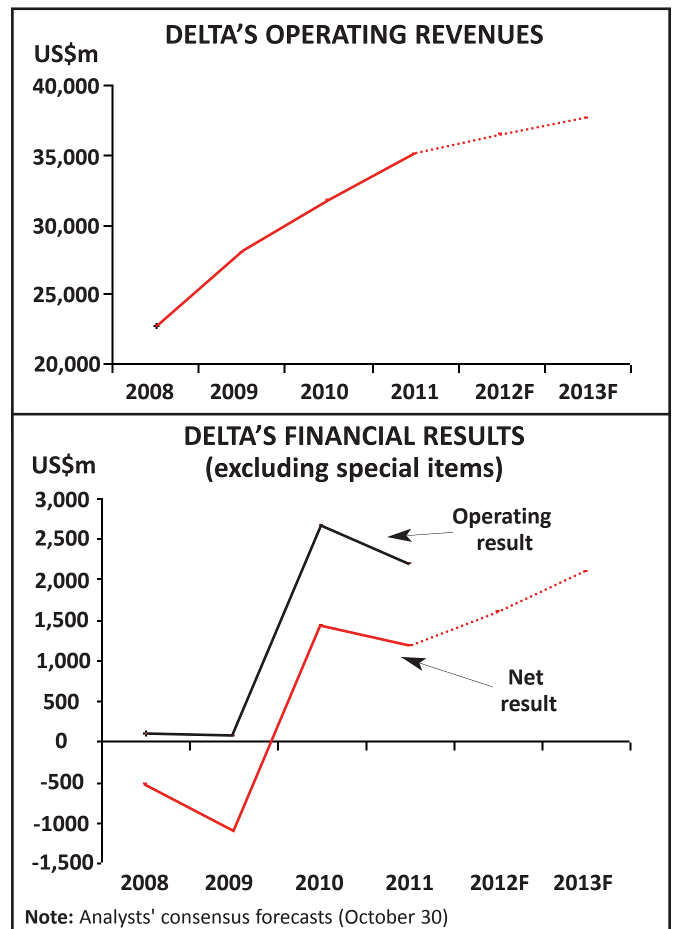
The biggest part is a domestic fleet restructuring, though the programme will also aim to achieve maintenance savings and technology and process-driven efficiencies. Having already completely retired its turboprop fleet, Delta now intends to replace 75% of it 50-seat flying with more cost-effective mainline aircraft – "capital-efficient" 717s and MD-90s and new 737-900s - and by larger (two-class) RJs. The 50-seat RJ fleet operated by regional partners will shrink from a peak of more than 500 in 2008 to fewer than 125.

Under a deal negotiated in May and which was conditional on the pilot deal being ratified, Delta is subleasing all 88 of the 717s Southwest inherited as part of its acquisition of AirTran (solving a major problem for Southwest, which prefers to operate only 737s). 78 of the aircraft are on lease from Boeing Capital while ten are owned. The aircraft will be delivered to Delta over three years, at a rate of about three aircraft per month, starting in mid-2013.

Like many other airlines, Delta has found that at current fuel prices the 50-seat RJs are no longer economic, particularly on stage lengths of over 450 miles. The aircraft were also becoming more expensive to maintain. By deploying larger aircraft in those markets Delta will be able to both achieve significant maintenance and operating cost savings and improve the onboard experience for passengers.

This strategy meant the closure of Cincinnati-based Comair at the end of September – one of few remaining wholly owned commuter units in the US. Delta had already drastically shrunk Comair over two years, after failing to find a buyer. When the closure decision was announced in July, Comair operated only 44 aircraft, accounting for 1% of Delta's network capacity.

Delta is currently evaluating larger regional jet models offered by Bombardier and Embraer and expects to make that decision, as well as the decision on who will operate and own the aircraft, by year-end. The new pilot deal permits up to 70 additional 76-seat RJs on top of the 255 already deployed in Delta's regional operations.



Note: Analysts' consensus forecasts (October 30)

The new pilot deal, which was ratified at the end of June, was instrumental in making all of that restructuring possible. Delta also secured productivity improvements, more flexible work rules and lower profit sharing. But the deal will be expensive for the airline, because the pilots secured pay increases totalling almost 20% by the end of 2014.

It was an industry-leading contract, with potential ramifications for pilot pay and negotiations at other US carriers. (It immediately paved the way for a new pilot deal at United, which the union described as being "on par with Delta from a pay-rate perspective", but appears not to have

helped things at all at American.)

When asked in the 3Q call how Delta can afford the new pilot contract, CEO Anderson spoke of the "overall value" that will be created. He expressed confidence that the deal will help Delta attain the unit cost levels it needs over the next couple of years to improve margins and ROIC.

Delta will not be releasing 2H13 cost guidance or any specific CASM targets until its investor day in December, when the timing of the various structural initiatives will be clearer. However, the financial community's response especially to the fleet restructuring has been highly positive.

The oil refinery venture

Then there will be the potential fuel cost savings from the Trainer refinery complex, which Delta continues to project at around $300m annually at full run rate.

Delta surprised many and attracted criticism for its bold and unusual move in the spring to acquire the idled oil refinery south of Philadelphia, aimed at managing its largest expense. Sceptics argued that the move was too risky and an unnecessary diversion for an airline. But since then attitudes have changed, especially since the economics look highly attractive.

In June Fitch Ratings called it an "innovative approach to the long-term management of the airline's jet fuel costs, notwithstanding the operational risks of running a refinery". The agency noted that fuel accounted 36% of Delta's operating expenses in 2011 and that the crack spread alone represented 10% of unit costs, up from 3% two years ago, "highlighting the urgency of alternative approaches to jet fuel cost management". While potential risks included "ongoing capex requirements, changes in the regulatory environment and operational issues linked to potential refinery outages in a single-asset business", Fitch considered that Trainer could give Delta "at least a 10 cent per gallon advantage over its competitors, as it cuts out the middleman and his profits".

Delta bought the Trainer facility from Conoco's Phillips 66 through wholly-owned subsidiary Monroe Energy. It entered into strategic sourcing and marketing agreements with BP and Phillips 66 and put in place a "seasoned leadership team headed by 25-year refinery veteran Jeffrey Warmann". BP will supply crude oil to be refined at the facility, and Monroe Energy will exchange gasoline and other refined products from Trainer for jet fuel from Phillips 66 and BP. The acquisition included pipelines and transportation assets that will provide access to the delivery network for jet fuel reaching Delta's operations throughout the Northeast, including LGA and JFK. The facility will provide 80% of Delta's jet fuel needs in the US.

The acquisition cost to Delta was $150m (after $30m state government assistance for job creation and suchlike). After investing another $100m on renovations and upgrades, Delta restarted Trainer's operations in September and expects to be at full production (refining 185,000 barrels per day) by 1Q13. The facility is expected to make a positive contribution of up to $25m to Delta's earnings in the current quarter.

Assuming the $300m annual savings (off Delta's $12bn fuel bill), which looks like a conservative estimate in light of the higher than normal jet fuel crack spreads this autumn, Delta would fully recover its $250m investment in year one.

So at this point it looks like a commendable effort to control fuel costs. Delta is the first airline to make its own fuel, though others have talked about it. United reportedly recently briefly looked at investing in a Texas refinery but decided that it had better uses for the $100m, such as paying down debt or investing in the product.

Interesting alliance moves

In addition to the continued development of the JV with Air France-KLM and Alitalia, which is probably the most deeply integrated of the transatlantic JVs, and

efforts to recruit new SkyTeam members and develop cooperation with existing members, in August 2011 Delta forged a very interesting deeper "long-term exclusive commercial alliance" with its SkyTeam partner Aeromexico. The deal, which was approved by Mexico's competition commission this summer (and which may actually have started a trend of global alliance members pairing up to forge deeper links), has meant Delta investing $65m for a 4.2% stake in Aeromexico and a seat on its board. In August Delta and Aeromexico disclosed more details of their plans to expand their MRO agreement by investing some $50m to build a joint heavy maintenance facility in Mexico. Delta executives commented that the project would "usher in lower maintenance costs" without compromising quality.

In December 2011 Delta invested $100m for a 3% stake in Gol; the deal also gave it a board seat, an exclusive codesharing agreement and two 767s. It was an important strategic move, helping ensure that Delta has a partner in Latin America's largest domestic market.

There has been speculation on whether Gol might join SkyTeam. With global alliances in a flux and Brazil becoming a key battlefield, CAPA recently reported that SkyTeam, in particular, is trying to develop new "hybrid" membership categories to make it easier and more attractive for LCCs like Gol to join. However, LCCs like Gol and JetBlue have made it very clear that they really do not want to join global alliances, not just because of the cost and restrictions but because they do not need the feed in some distant corner of the globe.

Delta executives have commented in the past that they saw the Aeromexico relationship eventually developing into a JV with ATI, once an open skies regime is secured. They also suggested that it might be a template for other relationships "particularly in South America". Given that there is also a trend away from "loose global alliances toward deeper pacts between individual airlines" (as the *Wall Street Journal* described it), that could well be where the Delta-Gol relationship is headed. Another new partner for Delta to focus on in South America is Aerolineas Argentinas, which joined SkyTeam in August.

The *Wall Street Journal* reported in October that Delta is in talks with SkyTeam partner Korean Air to expand their decade-old commercial alliance, but it is unclear how that could significantly help the carrier in the key transpacific markets.

Financial considerations

With three years of solid profits and significant free cash flow (FCF), and with the debt reduction target likely to be achieved in 2013, Delta is financially the best positioned of the US legacy carriers. It is beginning to focus on long-term margin expansion and shareholder returns. CEO Anderson stated: "We must and will expand out margins and hit our ROIC target of 10-12% on a consistent basis over the next several years".

Delta's financial achievements have been recognised by the credit rating agencies this year. In May S&P revised Delta's outlook to "positive", hinting that the ratings were likely to improve as the airline repays debt. In June Fitch upgraded Delta from "B-minus" to "B-plus", citing "two and a half years of strong FCF generation that has translated into a significant debt reduction".

However, the rating agencies expressed some concern about Delta's still-sizable debt maturities over the next several years and its massive pension deficit, which exists because only the pilots' pension plan was terminated in bankruptcy (the other plans were merely frozen). The other legacies terminated all of their pension plans in Chapter 11 (though not AMR), so Delta has a competitive disadvantage. Fitch commented that the mere 40% funded status of the frozen defined-benefit plans is a level that will be "difficult to sustain for an extended period", though it is obviously not a serious concern as long as Delta's FCF remains strong.

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		Group revenue US$m	Group costs US$m	Group op. profit US$m	Group net profit US$m	Operating margin	Net margin	Total ASK m	Total RPK m	Load factor	Total pax. 000s	Group emp.
Air France/	**Year 2009/10**	**29,096**	**31,357**	**-2,261**	**-2,162**	**-7.8%**	**-7.4%**	**251,012**	**202,453**	**80.7%**	**71,394**	**104,721**
KLM Group	Apr-Jun 10	7,301	7,469	-168	939	-2.3%	12.9%	60,345	49,283	81.7%	17,623	102,918
YE 31/03	Jul-Sep 10	8,579	7,835	743	374	8.7%	4.4%	66,558	56,457	84.8%	19,704	
	Oct-Dec 10	7,956	7,847	109	-62	1.4%	-0.8%	62,379	50,753	81.4%	17,551	101,946
	Year 2010/11	**31,219**	**19,236**	**1,171**	**810**	**3.8%**	**2.6%**	**250,836**	**204,737**	**81.6%**	**71,320**	**102,012**
	Apr-Jun 11	8,947	9,153	-206	-283	-2.3%	-3.2%	66,531	53,931	81.1%	19,653	
Note: FY 31/12	Apr -Sep 11	18,600	18,240	360	-257	1.9%	-1.4%	137,282	114,846	83.7%	40,605	102,516
Proforma	**Year 2011**	**34,109**	**34,602**	**-493**	**-1,131**	**-1.4%**	**-3.3%**	**264,895**	**217,169**	**81.8%**		**102,012**
	Jan - Mar 12	7,400	8,058	-658	-482	-8.9%	-6.5%	63,391	51,733	81.6%	17,463	101,222
	Apr - Jun 12	8,351	8,920	-569	-1,150	-6.8%	-13.8%	67,456	55,820	82.8%	19,980	
	Jul - Sep 12	8,989	8,356	633	383	7.0%	4.3%	72,246	62,098	86.0%	21,279	
British Airways	**Year 2009/10**	**12,761**	**13,130**	**-369**	**-678**	**-2.9%**	**-5.3%**	**141,178**	**110,851**	**78.5%**	**31,825**	**37,595**
YE 31/03												
IAG Group	Oct-Dec 10	5,124	5,116	8	121	0.2%	2.4%	50,417	39,305	78.0%		56,243
YE 31/12	Jan-Mar 11	4,969	5,109	-139	45	-2.8%	0.9%	51,118	37,768	73.9%	11,527	56,159
	Apr-Jun 11	5,951	5,678	273	135	4.6%	2.3%	53,425	42,635	79.8%	13,288	56,649
	Jul - Sep 11	6,356	5,842	514	401	8.1%	6.3%	55,661	47,022	84.5%	14,553	57,575
	Year 2011	**22,781**	**22,105**	**676**	**735**	**3.0%**	**3.2%**	**213,193**	**168,617**	**79.1%**	**51,687**	**56,791**
	Jan - Mar 12	5,136	5,463	-326	-240	-6.4%	-4.7%	51,425	39,140	76.1%	11,384	56,532
	Apr - Jun 12	5,926	5,931	-5	-72	-0.1%	-1.2%	55,851	45,421	81.3%	14,347	60,418
Iberia	**Year 2009**	**6,149**	**6,796**	**-647**	**-381**	**-10.5%**	**-6.2%**	**62,158**	**49,612**	**79.8%**		**20,671**
YE 31/12												
Lufthansa	**Year 2009**	**31,077**	**30,699**	**378**	**-139**	**1.2%**	**-0.4%**	**206,269**	**160,647**	**77.9%**	**76,543**	**112,320**
YE 31/12	Apr-Jun 10	8,763	8,560	203	248	2.3%	2.8%	57,565	45,788	79.5%	22,713	116,844
	Jul-Sep 10	9,764	8,754	1,010	810	10.3%	8.3%	63,883	53,355	83.5%	26,089	116,838
	Year 2010	**36,057**	**34,420**	**1,636**	**1,492**	**4.5%**	**4.1%**	**235,837**	**187,700**	**79.3%**	**91,157**	**117,019**
	Jan-Mar 11	8,792	9,031	-239	-692	-2.7%	-7.9%	60,326	43,726	72.5%	22,078	117,000
	Apr-Jun 11	10,967	10,636	331	433	3.0%	3.9%	68,763	53,603	78.0%	28,147	118,766
	Jul- Sep 11	11,430	10,616	814	699	7.1%	6.1%	73,674	60,216	81.7%	30,408	120,110
	Year 2011	**40,064**	**38,920**	**1,143**	**-18**	**2.9%**	**0.0%**	**268,939**	**207,536**	**77.2%**	**106,335**	**120,055**
	Jan - Mar 12	8,675	9,174	-499	-520	-5.8%	-6.0%	59,648	44,242	74.2%	21,867	120,898
	Apr - Jun 12	10,136	9,673	464	294	4.6%	2.9%	69,228	53,384	77.1%	27,483	117,416
	Jul - Sep 12	10,400	9,538	862	803	8.3%	7.7%	71,197	59,410	83.4%	29,433	114,022
SAS	**Year 2009**	**5,914**	**6,320**	**-406**	**-388**	**-6.9%**	**-6.6%**	**35,571**	**25,228**	**70.9%**	**24,898**	**18,786**
YE 31/12	Apr-Jun 10	1,321	1,367	-46	-66	-3.5%	-5.0%	8,769	6,612	75.4%	6,282	15,709
	Jul-Sep 10	1,471	1,538	-67	-145	-4.6%	-9.8%	9,180	7,239	78.9%	6,655	15,570
	Oct-Dec 10	1,556	1,606	-51	7	-3.2%	0.4%	8,761	6,389	72.9%	6,557	15,123
	Year 2010	**5,660**	**5,930**	**-270**	**-308**	**-4.8%**	**-5.4%**	**34,660**	**25,711**	**74.2%**	**25,228**	**15,559**
	Jan-Mar 11	1,336	1,395	-59	-54	-4.4%	-4.0%	8,528	5,655	66.3%	6,093	14,972
	Apr-Jun 11	1,793	1,648	145	88	8.1%	4.9%	9,848	7,494	76.1%	7,397	15,264
	Jul-Sep 11	1,642	1,565	77	33	4.7%	2.0%	9,609	7,579	78.9%	6,928	15,375
	Oct-Dec 11	1,507	1,559	-51	-308	-3.4%	-20.5%	9,019	6,446	71.5%	6,788	14,958
	Year 2011	**6,386**	**6,286**	**100**	**-260**	**1.6%**	**-4.1%**	**37,003**	**27,174**	**73.4%**	**27,206**	**15,142**
	Jan - Mar 12	1,419	1,548	-128	-108	-9.0%	-7.6%	8,701	5,943	68.3%	6,416	14,836
	Apr - Jun 12	1,642	1,551	91	46	5.5%	2.8%	10,300	7,936	77.0%	7,625	14,985
Ryanair	**Year 2009/10**	**4,244**	**3,656**	**568**	**431**	**13.5%**	**10.2%**			**82.0%**	**66,500**	
YE 31/03	Apr-Jun 10	1,145	992	152	120	13.3%	10.5%			83.0%	18,000	7,828
	Jul-Sep 10	1,658	1,150	508	426	30.7%	25.7%			85.0%	22,000	8,100
	Oct-Dec 10	1,015	1,016	-1	-14	-0.1%	-1.3%			85.0%	17,060	8,045
	Year 2010/11	**4,797**	**4,114**	**682**	**530**	**14.2%**	**11.0%**			**83.0%**	**72,100**	
	Apr-Jun 11	1,661	1,418	245	201	14.7%	12.1%			83.0%	21,300	
	Jul-Sep 11	2,204	1,523	681	572	30.9%	25.9%			87.0%	23,000	
	Oct - Dec 11	1,139	1,099	39	20	3.4%	1.8%			81.0%		
	Year 2011/12	**6,053**	**5,112**	**942**	**772**	**15.6%**	**12.8%**			**82.0%**	**75,800**	
	Apr - Jun 12	1,648	1,480	170	127	10.3%	7.7%			82.0%	22,500	
easyJet	**Year 2007/08**	**4,662**	**4,483**	**180**	**164**	**3.9%**	**3.5%**	**55,687**	**47,690**	**85.6%**	**43,700**	**6,107**
YE 30/09	Oct 08-Mar 09	1,557	1,731	-174	-130	-11.2%	-8.3%	24,754	21,017	84.9%	19,400	
	Year 2008/09	**4,138**	**3,789**	**93**	**110**	**2.3%**	**2.7%**	**58,165**	**50,566**	**86.9%**	**45,200**	
	Oct 09 - Mar10	1,871	1,995	-106	-94	-5.6%	-5.0%	27,077	23,633	87.3%	21,500	
	Year 2009/10	**4,635**	**4,364**	**271**	**240**	**5.9%**	**5.2%**	**62,945**	**56,128**	**87.0%**	**48,800**	
	Oct 10 - Mar 11	1,950	2,243	-229	-181	-11.7%	-9.3%	29,988	26,085	87.0%	23,900	
	Year 2010/11	**5,548**	**5,115**	**432**	**362**	**7.8%**	**6.5%**	**69,318**	**61,347**	**88.5%**	**54,500**	
	Oct 11 - Mar 12	2,302	2,458	-156	-141	-6.8%	-6.1%	30,785	27,329	88.8%	25,200	

Note: Annual figures may not add up to sum of interim results due to adjustments and consolidation.

		Group revenue US$m	Group costs US$m	Group op. profit US$m	Group net profit US$m	Operating margin	Net margin	Total ASK m	Total RPK m	Load factor	Total pax. 000s	Group emp.
Alaska	**Year 2010**	**3,832**	**3,361**	**472**	**251**	**12.3%**	**6.6%**	**44,636**	**36,758**	**82.4%**	**23,334**	**11,696**
	Jan - Mar 11	965	831	134	74	13.9%	7.7%	11,445	9,419	82.3%	5,752	11,884
	Apr - Jun 11	1,110	1,052	58	29	5.2%	2.6%	12,020	10,127	84.3%	6,246	11,907
	Jul - Sep 11	1,198	1,055	143	77	11.9%	6.4%	12,469	10,787	86.5%	6,709	11,859
	Oct - Dec 11	1,044	930	114	64	10.9%	6.1%	11,745	9,950	84.7%	6,083	11,807
	Year 2011	**4,318**	**3,869**	**449**	**245**	**10.4%**	**5.7%**	**47,679**	**40,284**	**84.5%**	**24,790**	**11,840**
	Jan - Mar 12	1,039	967	72	41	6.9%	3.9%	11,819	10,029	84.9%	5,995	11,832
	Apr- Jun 12	1,213	1,087	116	68	9.6%	5.6%	12,776	11,054	86.5%	6,565	11,965
	Jul - Sep 12	1,272	1,003	269	163	21.1%	12.8%	13,315	11,654	87.5%	6,950	12,035
American	**Year 2010**	**22,170**	**21,862**	**308**	**-471**	**1.4%**	**-2.1%**	**246,611**	**201,945**	**81.9%**	**86,130**	**78,250**
	Jan - Mar 11	5,533	5,765	-232	-436	-4.2%	-7.9%	60,912	46,935	77.1%	20,102	79,000
	Apr-Jun 11	6,114	6,192	-78	-286	-1.3%	-4.7%	63,130	52,766	83.6%	22,188	80,500
	Jul- Sep 11	6,376	6,337	39	-162	0.6%	-2.5%	64,269	54,552	84.9%	22,674	80,600
Chapt. 11 from Nov 29	**Year 2011**	**23,957**	**25,127**	**-1,170**	**-1,965**	**-4.9%**	**-8.2%**	**248,349**	**203,562**	**83.9%**		
	Jan - Mar 12	6,037	6,126	-89	-1,660	-1.5%	-27.5%	61,021	50,722	83.1%		
	Apr - Jun 12	6,452	6,310	142	-241	2.2%	-3.7%	61,618	52,441	85.1%		78,100
Delta	**Year 2010**	**31,755**	**29,538**	**2,217**	**593**	**7.0%**	**1.9%**	**374,458**	**310,867**	**83.0%**	**162,620**	**79,684**
	Jan - Mar 11	7,747	7,839	-92	-318	-1.2%	-4.1%	90,473	69,086	76.4%	36,764	81,563
	Apr-Jun 11	9,153	8,672	481	198	5.3%	2.2%	96,785	81,054	83.7%	42,918	82,347
	Jul - Sep 11	9,816	8,956	860	549	8.8%	5.6%	101,807	87,702	86.1%	44,713	79,709
	Year 2011	**35,115**	**33,140**	**1,975**	**854**	**5.6%**	**2.4%**	**377,642**	**310,228**	**82.1%**	**163,838**	**78,392**
	Jan - Mar 12	8,413	8,031	382	124	4.5%	1.5%	87,559	69,765	79.7%	37,557	78,761
	Apr - Jun 12	9,732	9,598	134	-164	1.4%	-1.7%	95,563	80,497	84.2%		80,646
Southwest	**Year 2010**	**12,104**	**11,116**	**988**	**459**	**8.2%**	**3.8%**	**158,415**	**125,601**	**79.3%**	**88,191**	**34,901**
	Jan - Mar 11	3,103	2,989	114	5	3.7%	0.2%	39,438	30,892	78.3%	25,599	35,452
	Apr- Jun 11	4,136	3,929	207	161	5.0%	3.9%	50,624	41,654	82.3%	27,114	43,805
	Jul - Sep 11	4,311	4,086	225	-140	5.2%	-3.2%	53,619	43,969	82.0%	28,208	45,112
	Oct - Dec 11	4,108	3,961	147	152	3.6%	3.7%	50,368	40,524	80.5%	27,536	45,392
	Year 2011	**15,658**	**14,965**	**693**	**178**	**4.4%**	**1.1%**	**194,048**	**157,040**	**80.9%**	**103,974**	**45,392**
	Jan - Mar 12	3,991	3,969	22	98	0.6%	2.5%	49,298	38,116	77.3%	25,561	46,227
	Apr - Jun 12	4,616	4,156	460	228	10.0%	4.9%	53,623	43,783	81.6%	28,859	46,128
Continental	**Year 2009**	**12,586**	**12,732**	**-146**	**-282**	**-1.2%**	**-2.2%**	**176,305**	**143,447**	**81.4%**	**62,809**	**41,000**
United	**Year 2009**	**16,335**	**16,496**	**-161**	**-651**	**-1.0%**	**-4.0%**	**226,454**	**183,854**	**81.2%**	**81,246**	**43,600**
United/Continental	Oct-Dec 10	8,433	8,515	-82	-325	-1.0%	-3.9%	100,201	82,214	82.0%	35,733	80,800
Pro-forma FY 2010	**Year 2010**	**34,013**	**32,195**	**1,818**	**854**	**5.3%**	**2.5%**	**407,304**	**338,824**	**83.2%**	**145,550**	**81,500**
	Jan - Mar 11	8,202	8,168	34	-213	0.4%	-2.6%	96,835	75,579	78.0%	32,589	82,000
	Apr-Jun 11	9,809	9,001	808	538	8.2%	5.5%	104,614	87,296	83.4%	37,000	81,100
	Jul - Sep 11	10,171	9,236	935	653	9.2%	6.4%	107,236	91,494	85.3%	38,019	80,500
	Oct - Dec 11	8,928	8,883	45	-138	0.5%	-1.5%	97,707	79,610	81.5%	34,191	82,700
	Year 2011	**37,110**	**35,288**	**1,822**	**840**	**4.9%**	**2.3%**	**406,393**	**333,977**	**82.2%**	**141,799**	**81,600**
	Jan - Mar 12	8,602	8,873	-271	-448	-3.2%	-5.2%	97,112	75,809	78.1%	32,527	83,700
	Apr - Jun 12	9,939	9,364	575	339	5.8%	3.4%	103,986	87,692	84.3%	37,071	84,500
US Airways Group	**Year 2010**	**11,908**	**11,127**	**781**	**502**	**6.6%**	**4.2%**	**138,107**	**111,996**	**81.1%**	**79,560**	**30,871**
	Jan - Mar 11	2,961	3,000	-39	-114	-1.3%	-3.9%	33,034	25,762	78.0%	18,851	30,621
	Apr-Jun 11	3,503	3,326	177	92	5.1%	2.6%	36,698	30,754	83.8%	21,209	31,321
	Jul - Sep 11	3,436	3,256	180	76	5.2%	2.2%	36,357	30,911	85.0%	20,655	31,327
	Oct - Dec 11	3,155	3,047	108	18	3.4%	0.6%	33,393	27,352	81.9%	19,857	31,548
	Year 2011	**13,055**	**12,629**	**426**	**71**	**3.3%**	**0.5%**	**139,483**	**114,777**	**82.3%**	**80,572**	**31,548**
	Jan - Mar 12	3,266	3,207	59	48	1.8%	1.5%	34,032	26,970	79.2%	19,822	31,186
	Apr - Jun 12	3,754	3,350	404	306	10.8%	8.2%	37,072	30,908	83.4%	21,206	31,467
JetBlue	**Year 2010**	**3,779**	**3,446**	**333**	**97**	**8.8%**	**2.6%**	**55,914**	**45,509**	**81.4%**	**24,254**	**11,121**
	Jan - Mar 11	1,012	967	45	3	4.4%	0.3%	13,696	11,143	81.4%	6,039	11,281
	Apr - Jun 11	1,151	1,065	86	25	7.5%	2.2%	15,193	12,379	81.5%	6,622	11,609
	Jul - Sep 11	1,195	1,087	108	35	9.0%	2.9%	15,856	13,409	84.6%	7,016	11,443
	Oct - Dec 11	1,146	1,063	83	23	7.2%	2.0%	15,168	12,472	82.2%	6,693	11,733
	Year 2011	**4,504**	**4,182**	**322**	**86**	**7.1%**	**1.9%**	**59,917**	**49,402**	**82.5%**	**26,370**	**11,733**
	Jan - Mar 12	1,203	1,114	89	30	7.4%	2.5%	15,346	12,726	82.9%	6,853	11,965
	Apr - Jun 12	1,277	1,147	130	52	10.2%	4.1%	16,030	13,674	85.3%	7,338	12,308

Note: Annual figures may not add up to sum of interim results due to adjustments and consolidation. 1 ASM = 1.6093 ASK. All US airline financial year ends are December 31st.

		Group revenue US$m	Group costs US$m	Group op. profit US$m	Group net profit US$m	Operating margin	Net margin	Total ASK m	Total RPK m	Load factor	Total pax. 000s	Group emp.
ANA	Year 2007/08	13,063	12,322	740	563	5.7%	4.3%	90,936	61,219	67.3%	50,384	
YE 31/03	Year 2008/09	13,925	13,849	75	-42	0.5%	-0.3%	87,127	56,957	65.4%	47,185	
	Year 2009/10	13,238	13,831	-582	-614	-4.4%	-4.6%	83,827	55,617	66.3%	44,560	
	Year 2010/11	15,889	15,093	796	269	5.0%	1.7%	85,562	59,458	69.5%	45,748	33,000
	Year 2011/12	16,008	14,887	1,121	347	7.0%	2.2%	91,162	59,940	65.8%	44,903	
Cathay Pacific	Year 2008	11,119	12,138	-1,018	-1,070	-9.2%	-9.6%	115,478	90,975	78.8%	24,959	18,718
YE 31/12	Year 2009	8,640	7,901	740	627	8.6%	7.3%	111,167	96,382	86.7%	24,558	18,511
	Year 2010	11,522	10,099	1,813	1,790	15.7%	15.5%	115,748	96,548	84.0%	26,796	21,592
	Year 2011	12,635	11,929	706	706	5.6%	5.6%	126,340	101,535	79.3%	27,581	
	Year 2012											
JAL	Year 2005/06	19,346	19,582	-236	-416	-1.2%	-2.2%	148,591	100,345	67.5%	58,040	53,010
YE 31/03	Year 2006/07	19,723	19,527	196	-139	1.0%	-0.7%	139,851	95,786	68.5%	57,510	
	Year 2007/08	19,583	18,793	790	148	4.0%	0.8%	134,214	92,173	68.7%	55,273	
	Year 2008/09	19,512	20,020	-508	-632	-2.6%	-3.2%	128,744	83,487	64.8%	52,858	
	Year 2010/11	16,018	13,802	2,216		13.8%		86,690	59,740	68.9%	34,795	
	Year 2011/12	14,166	12,117	2,049	2,194	14.5%	15.5%	71,202	48,217	67.7%	25,441	32,000
Korean Air	Year 2006	8,498	7,975	523	363	6.2%	4.3%	71,895	52,178	72.6%	22,140	16,623
YE 31/12	Year 2007	9,496	8,809	687	12	7.2%	0.1%	76,181	55,354	72.7%	22,830	16,825
	Year 2008	9,498	9,590	-92	-1,806	-1.0%	-19.0%	77,139	55,054	71.4%	21,960	18,600
	Year 2009	7,421	7,316	105	-49	1.4%	-0.7%	80,139	55,138	68.8%	20,750	19,178
	Year 2010	10,313	8,116	120	421	1.2%	4.1%	79,457	60,553	76.2%	22,930	
	Year 2011	11,094	10,678	416	-89	3.7%	-0.8%	84,285	64,483	76.9%	22,934	
Malaysian	Year2006	3,696	3,751	-55	-37	-1.5%	-1.0%	58,924	41,129	69.8%	15,466	19,596
YE 31/12	Year 2007	4,464	4,208	256	248	5.7%	5.6%	56,104	40,096	71.5%	13,962	19,423
	Year2008	4,671	4,579	92	74	2.0%	1.6%	52,868	35,868	67.8%	12,630	19,094
	Year 2009	3,296	3,475	-179	140	-5.4%	4.3%	42,790	32,894	76.9%	11,950	19,147
	Year 2010	4,237	4,155	82	73	1.9%	1.7%	49,624	37,838	76.2%	13,110	
	Year 2011	4,549	5,300	-751	-825	-16.5%	-18.1%	52,998	39,731	75.0%	13,301	
Qantas	Year 2007/08	14,515	13,283	1,232	869	8.5%	6.0%	127,019	102,466	80.7%	38,621	33,670
YE 30/6	Year 2008/09	10,855	10,733	152	92	1.4%	0.8%	124,595	99,176	79.6%	38,348	33,966
	Year 2009/10	12,150	11,926	223	102	1.8%	0.8%	124,717	100,727	80.8%	41,428	32,490
	Year 2010/11	14,842	14,200	642	249	4.3%	1.7%	133,281	106,759	80.1%	44,456	32,629
Singapore	Year 2006/07	9,555	8,688	866	1,403	9.1%	14.7%	112,544	89,149	79.2%	18,346	13,847
YE 31/03	Year 2007/08	10,831	9,390	1,441	1,449	13.3%	13.4%	113,919	91,485	80.3%	19,120	14,071
	Year 2008/09	11,135	10,506	629	798	5.6%	7.2%	117,789	90,128	76.5%	18,293	14,343
	Year 2009/10	8,908	8,864	44	196	0.5%	2.2%	105,674	82,882	78.4%	16,480	
	Year 2010/11	10,911	9,956	955	863	8.8%	7.9%	108,060	81,801	75.7%	16,647	
	Year 2011/12	9,664	9,519	145	270	1.5%	2.8%	113,410	87,824	77.4%	17,155	13,893
Air China	Year 2007	6,770	6,264	506	558	7.5%	8.2%	85,257	66,986	78.6%	34,830	19,334
YE 31/12	Year 2008	7,627	7,902	-275	-1,350	-3.6%	-17.7%	88,078	66,013	74.9%	34,250	19,972
	Year 2009	7,523	6,718	805	710	10.7%	9.4%	95,489	73,374	76.8%	39,840	23,506
	Year 2010	12,203	10,587	1,616	1,825	13.2%	15.0%	107,404	86,193	80.3%	46,420	
	Year 2011	15,260	14,289	971	1,095	6.4%	7.2%	113,987	93,185	81.8%	48,671	
China Southern	Year 2007	7,188	6,974	214	272	3.0%	3.8%	109,733	81,172	74.0%	56,910	45,474
YE 31/12	Year 2008	7,970	8,912	-942	-690	-11.8%	-8.7%	112,767	83,184	73.8%	58,240	46,209
	Year 2009	8,022	7,811	211	48	2.6%	0.6%	123,440	93,000	75.3%	66,280	50,412
	Year 2010	11,317	10,387	930	857	8.2%	7.6%	140,498	111,328	79.2%	76,460	
	Year 2011	14,017	13,342	675	944	4.8%	6.7%	151,074	122,342	81.0%	80,674	
China Eastern	Year 2007	5,608	5,603	5	32	0.1%	0.6%	77,713	57,180	73.6%	39,160	40,477
YE 31/12	Year 2008	6,018	8,192	-2,174	-2,201	-36.1%	-36.6%	75,919	53,754	70.8%	37,220	44,153
	Year 2009	5,896	5,629	267	25	4.5%	0.4%	84,422	60,918	72.2%	44,030	45,938
	Year 2010	11,089	10,248	841	734	7.6%	6.6%	119,451	93,153	78.0%	64,930	
	Year 2011	12,943	12,296	647	689	5.0%	5.3%	127,700	100,744	78.9%	68,681	57,096
Air Asia (Malaysia)	Year 2008	796	592	203	-142	25.5%	-17.9%	14,353	10,515	73.3%	9,183	4,593
YE 31/12	Year 2009	905	539	366	156	40.4%	17.3%	21,977	15,432	70.2%	14,253	
	Year 2010	1,245	887	358	333	28.8%	26.7%	24,362	18,499	75.9%	16,050	
	Year 2011	1,464	1,072	392	185	26.8%	12.6%	26,074	21,307	81.7%	17,986	

Note: Annual figures may not add up to sum of interim results due to adjustments and consolidation..

	Intra-Europe			North Atlantic			Europe-Far East			Total long-haul			Total International		
	ASK bn	RPK bn	LF %	ASK bn	RPK bn	LF %	ASK bn	RPK bn	LF %	ASK bn	RPK bn	LF %	ASK bn	RPK bn	LF %
1993	137.8	79.8	57.9	145.1	102.0	70.3	96.3	68.1	70.7	319.1	223.7	70.1	479.7	318.0	66.3
1994	144.7	87.7	60.6	150.3	108.8	72.4	102.8	76.1	74.0	334.0	243.6	72.9	503.7	346.7	68.8
1995	154.8	94.9	61.3	154.1	117.6	76.3	111.1	81.1	73.0	362.6	269.5	74.3	532.8	373.7	70.1
1996	165.1	100.8	61.1	163.9	126.4	77.1	121.1	88.8	73.3	391.9	292.8	74.7	583.5	410.9	70.4
1997	174.8	110.9	63.4	176.5	138.2	78.3	130.4	96.9	74.3	419.0	320.5	76.5	621.9	450.2	72.4
1998	188.3	120.3	63.9	194.2	149.7	77.1	135.4	100.6	74.3	453.6	344.2	75.9	673.2	484.8	72.0
1999	200.0	124.9	62.5	218.9	166.5	76.1	134.5	103.1	76.7	492.3	371.0	75.4	727.2	519.5	71.4
2000	208.2	132.8	63.8	229.9	179.4	78.1	137.8	108.0	78.3	508.9	396.5	77.9	755.0	555.2	73.5
2001	212.9	133.4	62.7	217.6	161.3	74.1	131.7	100.9	76.6	492.2	372.6	75.7	743.3	530.5	71.4
2002	197.2	129.3	65.6	181.0	144.4	79.8	129.1	104.4	80.9	447.8	355.1	79.3	679.2	507.7	74.7
2003	210.7	136.7	64.9	215.0	171.3	79.7	131.7	101.2	76.8	497.2	390.8	78.6	742.6	551.3	74.2
2004	220.6	144.2	65.4	224.0	182.9	81.6	153.6	119.9	78.0	535.2	428.7	80.1	795.7	600.7	75.5
2005	309.3	207.7	67.2	225.9	186.6	82.6	168.6	134.4	79.7	562.6	456.4	81.1	830.8	639.3	76.9
2006	329.9	226.6	68.7	230.5	188.0	81.5	182.7	147.5	80.7	588.2	478.4	81.3	874.6	677.3	77.4
2007	346.6	239.9	69.2	241.4	196.1	81.2	184.2	152.1	82.6	610.6	500.4	81.9	915.2	713.9	78.0
2008	354.8	241.5	68.1	244.8	199.2	81.4	191.1	153.8	80.5	634.7	512.4	80.7	955.7	735.0	76.9
2009	322.1	219.3	68.1	227.8	187.7	82.4	181.2	145.8	80.5	603.8	488.7	80.9	912.7	701.1	76.8
2010	332.3	232.6	70.0	224.2	188.1	83.9	180.2	150.0	83.2	604.1	500.4	82.8	922.7	752.8	78.7
2011	349.6	248.8	71.2	248.5	205.4	82.7	204.9	163.3	79.7	670.3	544.9	81.3	1,006.8	785.0	78.0
Aug '12	32.4	25.2	77.7	24.6	22.1	89.6	18.7	16.1	85.8	63.0	54.8	87.0	94.5	79.6	84.2
Ann. change	1.0%	2.5%	1.2	4.8%	5.9%	1.0	2.6%	4.8%	1.8	3.6%	4.4%	0.7	3.0%	4.3%	1.1
Jan - Aug '12	235.2	171.5	72.9	168.5	142.8	84.7	141.0	114.9	81.5	459.8	381.4	82.9	687.2	548.5	79.8
Ann. change	1.3%	3.8%	1.7	1.6%	4.4%	2.3	4.3%	6.5%	1.7	3.5%	5.7%	1.7	3.0%	5.4%	1.9

JET ORDERS

	Date	Buyer	Order	Delivery/other information
Boeing	11 Oct	Alaska Airlines	20 x 737 MAX8, 17 x 737 MAX9, 13 x 737-900ER	
	03 Oct	GECAS	75 x 737 MAX8, 10 x 737-800	plus 15 737-800 options
	01 Oct	GOL	60 x 737 MAX	
Airbus	30 Oct	Etihad Airways	2 x A330-200	
	09 Oct	Turkish Airlines	15 x A330-300	
	01 Oct	Philippine Airlines	10 x A330-300	

Note: Only firm orders from identifiable airlines/lessors are included. **Source:** Manufacturers.

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Card number ______
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☐ **I am sending a direct bank transfer of the relevant sum, net of all charges to Aviation Economics' account:** HSBC Bank,
IBAN: GB33MIDL40043791256904
Sort code: 40 04 37 Account no: 91256904

Invoice address (if different from delivery address)

Name ______
Position ______
Company ______
Address ______

Country ______ Postcode ______

PLEASE RETURN THIS FORM TO:
Aviation Economics Ltd.
James House, 22/24 Corsham Street
London N1 6DR
Fax: +44 (0)20 7490 5218
VAT Registration No. 701 7809 47