




# Airline Cost Performance

IATA ECONOMICS BRIEFING N° 5

 An analysis of the cost base of leading network airlines versus no-frills, low-cost airlines (LCCs)



IATA Economics Briefing N° 5:  
AIRLINE COST PERFORMANCE

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# 00 | Foreword

Every airline is now a lower-cost airline.

The worst financial crisis in the industry's history over the last five years has forced all carriers to achieve cost efficiencies and higher productivity if they are to survive.



Significant progress has been made in reducing non-fuel costs and in improving the efficiency of fuel use, but the challenge is on-going and central to the future prosperity of the industry.

While network airlines have made significant progress in restructuring their cost base, they are often faced with a moving target. Low barriers to entry to the industry, combined with national or regional deregulation, have seen new or restructured no-frills, low-cost operators (LCCs)<sup>1</sup> capture a fast-growing share of regional airline markets.

IATA will continue to represent, lead and serve the airline industry in identifying and delivering cost efficiencies through campaigns such as Simplifying the Business (StB) and the Fuel Action Campaign. This report provides a useful insight into where cost gaps exist and where further action is possible. It provides interesting lessons, not just for regions with a history of competition with LCC airlines but also for regions where LCC carriers are still in their infancy.

The cost efficiencies available to network airlines are, in many cases, also available or already implemented by the LCCs. Therefore, as airlines reduce costs, their LCC

competitors on short-haul routes are often doing likewise. As such, with the airline industry still characterised by strong competition and excess capacity, lower costs, while essential, are not always sufficient by themselves to improve profitability.

So airlines must not forget the differences in product quality they can offer and the competitive advantages that are available. This report demonstrates that there are still important lessons on cost stability and cost control that can be learned from the more successful LCC airlines. Nevertheless, certain additional costs are worth preserving – though only if delivered efficiently – if they can attract and expand additional revenue streams while also providing higher benefits for both customers and the wider economy.

A handwritten signature in blue ink, reading "Giovanni Bisignani". The signature is fluid and cursive, written in a professional style.

**Giovanni Bisignani - Director General & CEO, IATA**

<sup>1</sup> There is no standard definition or business model for these airlines (see Chapter 3), each incorporating a different mix of low-cost, no-frills or low-fare characteristics. However for the purpose of this report they are referred to as LCCs.

# 01 | Executive Summary

Cost efficiency is critical for an airline's ability to compete and survive. Yet, this does not mean that every airline should seek to be the lowest cost operator. Instead, it is important that the costs appropriate for the standard of service provided to the customer are achieved in the most efficient manner.

The emergence and growth of no frills, low cost airlines (LCCs) have radically altered the nature of competition within the airline industry, especially on short-haul routes. The major LCCs have exploited different operational methods (e.g. point-to-point routes from secondary airports), fewer service offerings (e.g. charges for in-flight catering) and distribution efficiencies (e.g. internet-only bookings) to lower their cost base and to lower the average fares paid by customers. Yet not all LCCs are profitable, with typically only a handful of market-leading LCCs in a region producing a consistent level of returns above their cost of capital<sup>2</sup>.

Strong competition from LCCs has forced the network airlines to respond or to fail. The strategic response can take many forms, but all involve improving cost efficiency – a process given even more urgency by the significant rise in jet fuel costs in the last two years. However, while there are several lessons on cost-efficiency to learn from the LCCs it does not mean that network airlines must adopt their business model wholesale. Airlines offering additional services for which their target customer base is willing-to-pay will incur higher costs, the key is ensuring that these costs are delivered efficiently and economically relative to the premium in yields that higher service quality can attract.

## THE SCOPE OF THE STUDY

IATA worked closely with McKinsey & Company to estimate the difference in unit costs between network airlines and LCCs in four regions; the United States, Europe, Asia and South America. The analysis is undertaken for all of the major cost categories, enabling a clear picture to be built of where the key cost differences lie. The analysis looks only at operating costs. As such, it excludes any differences in terms of, for example, interest repayments or pension costs that can have a significant impact upon the net profit levels at the airline group level.

The analysis is undertaken on a like-for-like basis, looking only at comparable geographical routes (e.g. US LCCs are compared with US network airlines' cost base for domestic routes, not with long-haul operations). However, appropriate adjustments are made in accordance with differences between airlines in average stage length and in seat density (i.e. the number of seats placed on the same type of aircraft). The analysis allows

comparisons to be made between airlines in the same region but, due to large differences in cost structures and stage lengths, should not be used to compare the unit cost base in one region to that of another region.

The analysis was also used to show how unit cost differences have changed over time. The time period chosen for each region differs according to how long the major LCCs have been in operation and on the availability of consistent data. The US analysis covers the period 1996 to 2004, for Europe it is 1997 to 2004, for South America it is 2001 to 2004 and for Asia it is 2002 to 2004.

## KEY RESULTS

The key findings from the IATA and McKinsey analysis are:

### A COST GAP EXISTS IN EACH REGION, ACROSS A RANGE OF COST CATEGORIES:

- **The cost gaps are more than just a reflection of different business models.**

In 2004, there was a 36% cost gap in terms of operating costs per available seat kilometre (ASK) for the three largest US network airlines versus Southwest<sup>3</sup>. In Europe the gap was also high – at 40% versus Easyjet and 64% versus Ryanair – while 60-70% gaps also exist in Asia and Latin America. Part of the cost gap reflects the premium service offered by network airlines and the use of short-haul traffic to feed into long-haul networks, which enables the network airlines to derive higher average yields than the LCCs. However, there are also significant differences across the operational and infrastructure cost categories, which suggest there is scope for efficiencies. For example, Ryanair has significantly lowered operational and distribution costs, while also fitting more seats on equivalent types of aircraft than the European network airlines. Labour costs (cabin and crew personnel) account for a proportion of the cost gap in each region, though the differences in flight personnel costs is typically not the base wage cost but greater labour productivity among the LCCs.

<sup>2</sup> See IATA Economic Briefing No.4 (June 2006), "Value Chain Profitability", for further details.

<sup>3</sup> The cost gap is calculated as the difference in unit costs between the airlines as a percentage of the highest unit cost value. In other words, Southwest's unit costs were 64% of the level of unit costs for the network airlines.



▪ **The nature of the cost gap differs between regions.**

The largest component of the cost gap between US network airlines and LCCs is still product and distribution costs, even with the substantial progress made by network airlines in areas such as on-line booking and the reductions in on-board service in economy class since 2001. There is less room for differentiation among infrastructure-related costs in the US. In Europe, infrastructure costs account for a sizeable proportion of the cost gap, largely reflecting the use of secondary airports. Significant gaps also exist among the operational and the product and distribution costs, reflecting key parts of the LCC strategy. For Asia and Latin America, the major difference is in the substantially lower infrastructure costs and distribution costs enjoyed by Air Asia and Gol.

**NETWORK AIRLINES HAVE REDUCED COSTS, BUT HAVE YET TO SIGNIFICANTLY REDUCE THE COST GAP**

▪ **The US cost gap has slightly narrowed, but only after widening in the late 1990s.**

Major restructuring among US network airlines has seen the gap to Southwest narrow from 45% in 2001 to 36% in 2004 (see Figure 1.1)<sup>4</sup>. However, this convergence merely reversed the widening of the cost gap in the late 1990s. With Southwest enjoying a very stable cost base, the cost gap in 2004 was virtually the same as in 1996. JetBlue and AirTran have also managed to maintain a

significant cost gap with the network airlines over the last four years. Further reductions in non-fuel unit costs are estimated to have been made by US network airlines in 2005, though they have been cutting domestic capacity while the LCCs have been increasing their market share.

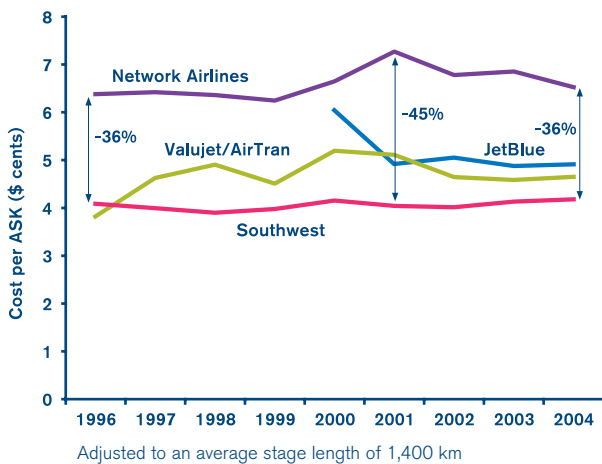
▪ **In other regions, network airlines have typically been reducing unit costs at a similar speed to the LCCs.**

European network airlines have reduced unit costs since 2001, especially on the sales and distribution side (see Figure 1.2). Yet Ryanair, Easyjet and Virgin Express have also managed to reduce costs to a similar or even greater extent, while gaining revenue in some areas that are costs for the majors (e.g. charging for catering). Gol's rapid expansion in Latin America has seen its cost per ASK increase slightly since 2001 but it remains less than half of that for a major network airline in the region. Meanwhile, Air Asia has managed to reduce even further its already very low cost base since 2002.

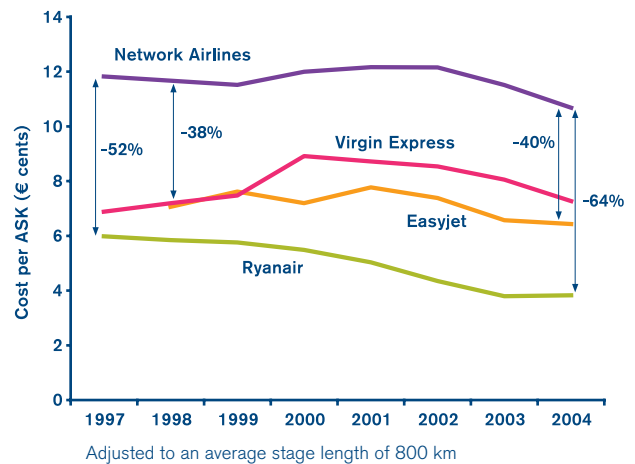
▪ **There are significant unit cost differences between LCCs too.**

While the larger LCCs continue to exert strong low-cost competition, it is not such a clear picture for other smaller LCCs. The smaller LCCs (e.g. AirTran in US, Virgin Express in Europe) have less of a cost gap compared to network airlines and have seen a more volatile movement in costs over time. Indeed, a large number of the new, small LCCs that have started up in the US, Europe and other regions are loss-making.

1.1: Adjusted Cost per ASK for US airlines, 1996 – 2004<sup>5</sup>



1.2: Adjusted Cost per ASK for European airlines, 1997 – 2004



<sup>4</sup> All values in each time-series analysis are adjusted for inflation to 2004 constant prices.

<sup>5</sup> Unless otherwise stated, the source data for all of the charts in this report is from the McKinsey analysis.



## EUROPEAN AIRLINES HAVE BEEN MORE SUCCESSFUL AT USING SOME ADDITIONAL COSTS TO MAINTAIN A SIZEABLE REVENUE PER AVAILABLE SEAT KILOMETRE (RASK) PREMIUM OVER THE LCCS

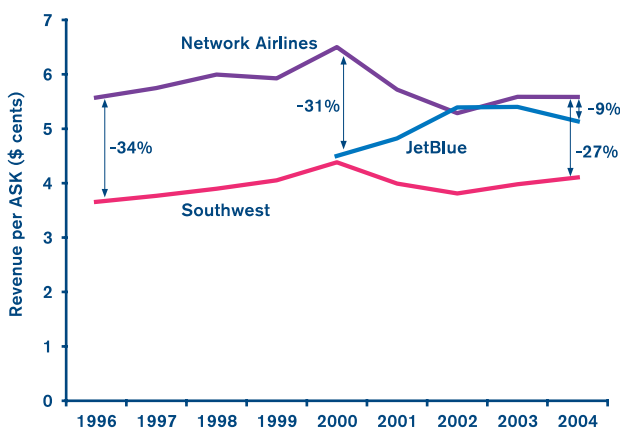
- The revenue premium for US network airlines over LCCs is relatively low.

The three largest US network airlines have managed to increase revenue per ASK on domestic routes since 2002 (see Figure 1.3), while also reducing unit costs. However, the revenue premium for network airlines over LCCs remains less than the cost gap. As such, operating profitability remains low or negative for the network airlines on these routes. The lower yield premium reflects relatively strong route-by-route competition with the LCCs in the US, but also reflects the difficulties many US airlines face in differentiating the quality of their product on domestic routes.

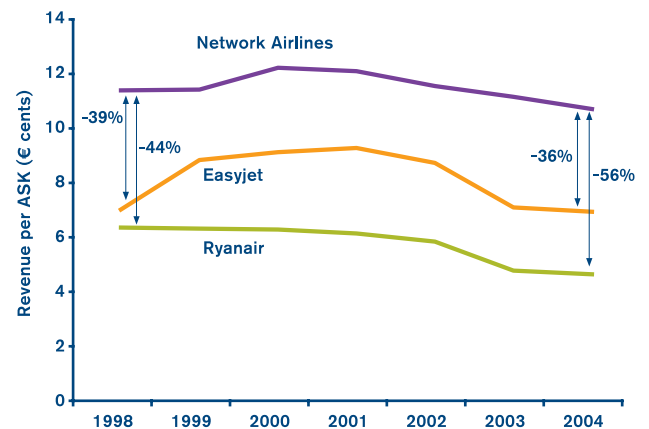
- European airlines have increased the yield premium, even with average yields falling.

By contrast, the three largest European network airlines have managed to maintain a significant yield premium over the major LCCs, and have even expanded the premium as average yields fell from 2001 onwards (see Figure 1.4). The difference can only partly reflect slightly less competition, since European network airlines face direct competition from LCCs on around a third of their routes compared to 40% of routes for US network airlines. It will be influenced more significantly by the success among the three main European network airlines in differentiating the higher quality of service provided. Customers perceive a much larger difference between network airlines and LCCs in terms of passenger service, network connections, frequencies and more convenient airports in Europe than in the US.

1.3: Adjusted RASK for US airlines, 1996 – 2004







1.4: Adjusted RASK for European airlines, 1997 – 2004





## IMPLICATIONS

This report provides the following **key conclusions** for the airline industry:

-  **Greater cost efficiency is already being achieved.** However, the size and continued existence of the cost gap demonstrates that network airlines must still seek further cost efficiencies and cost discipline. IATA – through campaigns such as Simplifying the Business and the Fuel Action Campaign – will continue to work actively with our members to deliver cost efficiencies. This will be a dynamic and on-going process – the productivity improvements and cost efficiencies delivered since 2001, while impressive, are just the start.
-  **The success of some LCCs can provide important lessons for network airlines.** There are several areas, from distribution to aircraft utilisation, where the network airlines can move closer to an LCC approach in order to lower costs. Governments and suppliers also have a role to play in allowing airlines to achieve greater cost efficiencies. Airports and suppliers must proactively seek greater efficiency in their operations. Governments must allow airlines greater freedom to restructure their operations and ownership on a commercial basis.
-  **However, the network model can also provide some competitive advantages.** The higher product quality that can be offered by network airlines (e.g. network connections, flexibility, product comfort, more convenient airports) will incur some additional costs; though can also be used to attract customers willing to pay a premium for the additional service. As such, “efficient differentiation” between network airlines and LCCs, lowering costs but not at the expense of reducing the quality of service to the target customer base, can address both the cost and revenue side at the same time.
-  **For regions where LCCs are still in their infancy, network airlines should note how LCCs have managed their costs, across several categories, in other regions and respond proactively.** The emergence of LCC competition will often require significant structural changes for existing airlines and a shift in focus towards identifying and achieving cost efficiencies. However, in meeting the LCC challenge, existing airlines must not lose sight of the higher quality of service and customer benefits that they can offer (e.g. network connections, flexibility, product comfort, more convenient airports, personal rewards through loyalty schemes), provided that the additional revenues generated by a higher level of service can exceed the additional costs incurred.

# 02 | Introduction

The ability to deliver cost efficiencies and productivity improvements is central to an airline's competitiveness and success. The emergence of the no-frills, low-cost airlines (LCCs) has increased competition within the airline industry and ensured that existing airlines must improve their cost performance or face the risk of failure.

LCCs have radically altered the structure and business model of the traditional airline industry. New approaches to operations, infrastructure usage, distribution and passenger service have been employed, as costs have been lowered across all categories. For existing airlines, the growth of LCCs has significantly increased competition, but can also provide useful examples for improving the efficiency of their own cost base.

This report provides new insights for network airlines to identify where there are cost differences with the LCCs and to understand how they have changed over time. Once this picture is clearer, it is then a choice for individual airline strategies to decide which additional costs are necessary to provide a higher level of service quality to customers and which costs can be met more efficiently by following an LCC-type approach.

## THE LCC CHALLENGE

Chapter 3 discusses the emergence and growth of no-frills, low-cost airlines in the four regions studied in the report; the US, Europe, Asia and South America. It analyses the growth in market share of the LCCs, but also notes that only a handful of the LCCs are actually profitable.

## THE SIZE OF THE COST GAP IN THE UNITED STATES

Chapter 4 looks at the size, nature and duration of the cost gap between the three largest network airlines and three LCCs on domestic routes in the United States. It shows that despite facing LCC competition since the deregulation of US domestic routes in 1978, network airlines have only recently begun to close the cost gap and still face significant unit cost differences across a variety of cost categories.

## THE SIZE OF THE COST GAP IN EUROPE

Chapter 5 looks at the size, nature and duration of the cost gap between the three largest network airlines and three LCCs on routes within Europe. It shows that even though network airlines have managed to reduce their unit costs since 2001, these reductions have been matched by the LCCs who retain a significant cost gap in many areas.

## THE SIZE OF THE COST GAP IN ASIA AND SOUTH AMERICA

Chapter 6 looks at the size, nature and duration of the cost gap between a large network airline and an LCC on routes within Asia and, separately, on routes within South America. It shows that although LCC competition is relatively new in both regions, the use of similar LCC operational models to those in the US and Europe has seen a significant cost gap emerge compared to network airlines.

## HIGH FUEL PRICES HAVE INCREASED THE IMPORTANCE OF ACHIEVING GREATER COST EFFICIENCIES.

Chapter 7 discusses how the sharp rise in jet fuel prices since 2003 has increased the urgency for airlines to improve their overall cost efficiency and productivity levels. It provides an analysis of how higher fuel prices have impacted on an airline's operating cost base and how airlines have responded to this cost pressure.

## SOME COSTS THAT IMPROVE SERVICE QUALITY CAN HELP TO ATTRACT HIGHER YIELDS.

Chapter 8 looks at the other side of the equation, assessing how the willingness-to-pay of some customers for higher service quality, means that network airlines can still attract a premium in fare prices over the LCC. It examines the strategy of "efficient differentiation"; looking at how an airline can identify what costs are needed to support the service quality demanded by its target customer base, then focus on delivering these costs in the most efficient manner.

Chapter 9 provides a summary and conclusions.

# 03 | The LCC Challenge

The emergence and rapid growth of the LCCs has significantly increased competition within the airline industry and forced legacy airlines to re-examine and improve their own operations. However, while the larger LCCs have been very successful, the low profitability or losses of many smaller LCCs suggests that an effective airline strategy, rather than just the LCC model by itself, is the key to success.

There is no standard business model or definition for an LCC. The term itself incorporates a wide range of airlines with significant differences in the type of routes and the level of passenger service offered. For example, Ryanair in Europe is a pure no-frills airline, flying from secondary airports and targeting customers through ultra-low prices. By contrast, JetBlue in the US offers some passenger services (e.g. in-flight TVs), flies into major airports and promotes itself as offering the “best service at low prices”. Yet both airlines are viewed as LCCs.

The airline's own strategy and value proposition will determine whether it promotes itself to potential customers as an LCC. In general, an LCC would include the following characteristics, at least to some degree:

- Primarily point-to-point operations.
- Serving short-haul routes, often to/from regional or secondary airports.
- A strong focus on price sensitive traffic, mostly leisure passengers.
- Typically one service class only, with no (or limited) customer loyalty programmes.
- Limited passenger services, with additional charges for some services (e.g. on-board catering).
- Low average fares, with a strong focus on price competition.
- Different fares offered, related to aircraft load factors and/or length of time before departure.
- A very high proportion of bookings made through the Internet.
- High aircraft utilisation rates, with short turnaround times between operations.
- A fleet consisting of just one or two types of aircraft.
- Private-sector companies.
- A simple management and overhead structure with a lean strategic decision-making process.



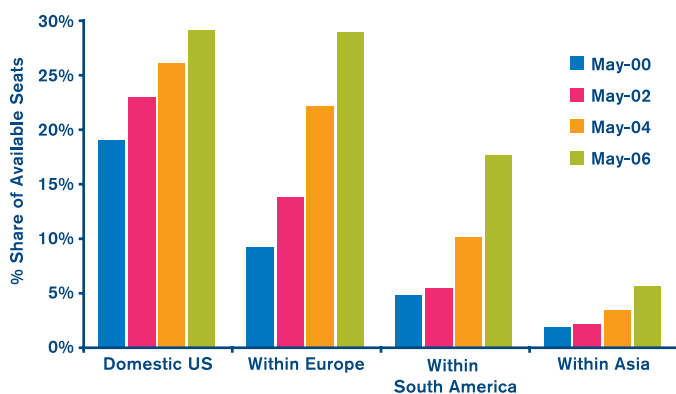
## LCCS HAVE RAPIDLY INCREASED THEIR MARKET SHARE ON SHORT-HAUL ROUTES

In terms of available seats, LCCs have rapidly increased their market share since 2000 in each of the four regions studied in this report (see Figure 3.1). LCCs have existed for a longer period of time in the US than elsewhere, and LCCs already accounted for around a fifth of the domestic market in 2000. However, even in the US there has been rapid growth, with LCCs accounting for nearly 30% of available seats in 2006.

On routes within Europe, both the number of LCCs and their size have increased rapidly in the last six years. The expansion is now shifting towards Central and Eastern Europe following the enlargement of the European Union (and the deregulation of routes within new EU member countries) in 2004. LCCs now account for 29% of seats within Europe, up from less than 10% in 2000. LCCs have been established for a shorter period of time in South America and Asia, but are also seeing strong capacity growth in both regions. LCCs currently account for around 18% of available seats within South America and 6% of available seats in Asia.

However, the growth of LCCs is taking place within an overall air passenger market that is increasing, especially in fast-growing regions such as Asia. Indeed, LCCs often focus on stimulating and exploiting pent-up demand for cheap air travel, generating new leisure passengers or attracting them away from road or rail travel. The generation of this new demand can benefit the airline industry as a whole.

3.1: The Growth in Market Share of LCCs (Source: SRS Analyser)



A previous study by McKinsey & Co<sup>6</sup> identified **four patterns** associated with a new LCC service, using examples of routes from London:

➤ **Demand stimulation.** The LCC either generates demand on a completely new route (e.g. London to Treviso) or boosts overall traffic levels on a route already served by network airlines (e.g. London to Barcelona).

➤ **Demand stagnation.** The LCC initially generates new demand, though the market quickly matures and demand levels either stabilise or reduce slightly (e.g. London to Bologna, London to Aarhus).

➤ **Shift in market share.** The entry of the LCC attracts demand away from the existing network or charter operators on the route, leading to a cutback in capacity on the route by the network airline (e.g. London to Genoa, London to Faro).

➤ **Exit of the LCC.** The LCC enters the market but demand quickly matures or the LCC struggles to attract demand away from the network carrier, leading to the LCC to reduce capacity (e.g. London to Marseille, London to Charleroi).

While much of the early growth of LCCs has benefited from demand stimulation, there are plenty of examples of where the LCC model has not sustained the level of traffic required and the LCC has exited the route. This suggests that the LCC model is often not a direct replacement for the network model. Instead it is more suited to particular markets, especially those with standard, high-volume point-to-point traffic.

<sup>6</sup> Urs Binggeli and Lucio Pompeo, "The battle for Europe's low-fare flyers", The McKinsey Quarterly, January 2005.

## LCC COMPETITION IS ONE FACTOR DRIVING A DECLINE IN AVERAGE AIRLINE YIELDS

The deregulation in domestic US routes and in routes within the EU has enabled new or restructured LCCs to enter new markets and to increase their market share. The entry of significant new capacity on many routes has helped to generate new traffic, but has also led to strong competition for existing and potential passengers. LCCs have typically focused on price competition, through lower average fares, to attract traffic to a new route.

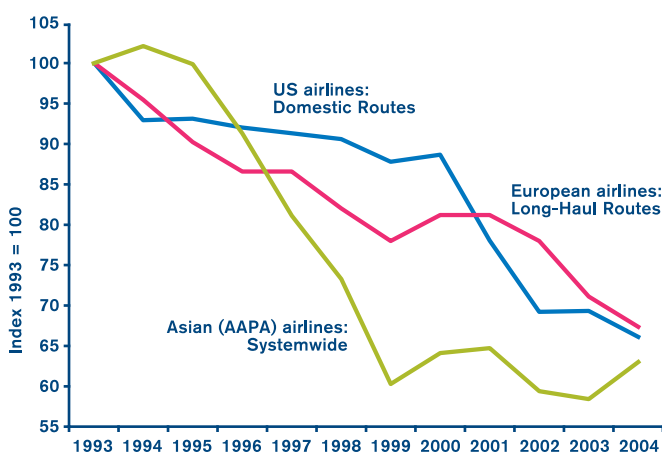
Airline customers have been the main beneficiaries. For example, average yields on US domestic routes have fallen by over 30% in real terms since 1993 (see Figure 3.2). Indeed, deregulation in the domestic US market – and the lower fares and increased choice it has brought – is estimated to provide airline customers with at least \$20 billion of additional value (i.e. consumer surplus) each year<sup>7</sup>. However, as also shown in Figure 3.2, there are other factors that have contributed to lower yields across the airline industry, even on routes where there is limited competition from LCCs. Competition among network airlines, along with efficiency gains passed on to customers, have also seen yields fall to a similar extent on, for example, long-haul routes from Europe and routes operated by Asian network airlines.

## AN LCC MODEL BY ITSELF DOES NOT GUARANTEE HIGH PROFITABILITY

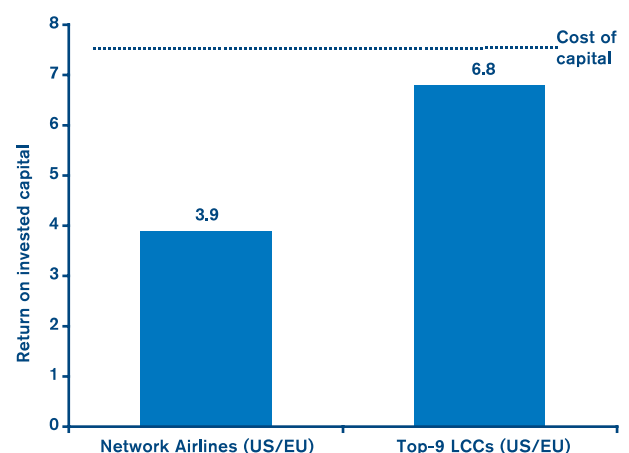
Though LCCs have gained an increased market share, strong price competition has meant that only a handful have been very profitable. For example, Gol Linhas Aereas, Ryanair and Air Asia have managed to achieve operating profit margins of over 20%. However, several other LCCs have seen low profitability or even losses over the same period.

A previous report from IATA on “Value Chain Profitability”<sup>8</sup> showed that while the largest LCCs delivered a higher return on invested capital (ROIC) than network airlines, as a group they were still unable to meet their cost of capital (see Figure 3.3). The inclusion of several smaller LCCs that have established operations over the last four years would lower even further the average ROIC. The LCC business model by itself is not a guarantor of success or otherwise – it is the individual airline’s strategy that is key. For example, low-cost by itself is not sufficient to generate good returns if most of the cost improvement is passed through in lower yields. New or small LCC airlines must cope with tough operating environments.

3.2: Average airline yields per Revenue Passenger Kilometre (in real terms)



3.3: Return on Invested Capital, 1996-2004



<sup>7</sup> Alfred E. Kahn (2004), “Lessons from Deregulation”, AEI-Brookings Joint Centre for Regulatory Studies

<sup>8</sup> See IATA Economic Briefing No.4 (June 2006), “Value Chain Profitability”, for further details.

# 04 | Airline Cost Performance for US Airlines

US network airlines did manage to narrow the cost gap with leading LCCs between 2001 and 2004. Network airlines have made good progress, in particular, in reducing labour and distribution unit costs. However, this improvement has, so far, only reversed the widening of the cost gap in the late 1990s. Sizeable cost differences still remain.

## THE KEY CONCLUSIONS OF THIS CHAPTER ARE:

- Major restructuring among US network airlines has seen a reduction in their unit costs by over 10% between 2001 and 2004, with an even greater 17% reduction in non-fuel operating costs over the same period.
- However, this convergence merely reversed the widening of the cost gap in the late 1990s. With Southwest enjoying a very stable cost base, the 36% cost gap in 2004 was virtually the same as in 1996. JetBlue and AirTran have also managed to maintain a significant cost gap with the network airlines over the last four years.
- Significant progress has been made by network airlines since 2001 in reducing distribution costs, with sizeable savings also achieved on many other operational costs. However, fuel costs have continued to rise due to external factors. Southwest's unit costs have continued to be relatively stable since 2001, with higher labour costs offset by further savings in distribution costs. Southwest was also able to use its relatively strong financial position to limit the increase in fuel costs through fuel price hedging.
- It is not possible to directly compare the level of unit costs with airlines in other regions (e.g. with European airlines), due to major differences in cost structures and differences in average stage lengths. However, the relative size of the cost gap can, to some extent, be compared. The 36% cost gap between US network airlines and Southwest is much lower than the 64% cost gap between European network airlines and Ryanair (see Chapter 5).
- The main reason for a lower cost gap in the US is due to less potential for LCCs to differentiate their infrastructure costs from the network airlines (e.g. secondary airports are further away from major population centres than in Europe, no en-route charges and less difference in ground handling rates between US airports). However, a lower cost gap has not meant better profitability than the European network airlines, quite the opposite in fact. A lower cost gap in the US may also reflect less differentiation in product quality between network carriers and LCCs, which would partly explain the lower revenue premium of US network carriers over the LCCs (see Chapter 8).

## THE SCOPE OF THE ANALYSIS

IATA worked closely with McKinsey & Company to estimate the difference in unit costs between the largest US network airlines (American, United and Delta) and three LCCs; Southwest, JetBlue and AirTran (also known as ValuJet in earlier years). Information on each airline's costs and available capacity on domestic US routes was taken from the Bureau of Transportation Statistics' Form 41 data.

The analysis is undertaken for all of the major cost categories, enabling a clear picture to be built of where the key cost differences lie. Costs are compared in unit terms, with the cost levels expressed in terms of US cents per available seat kilometre (ASK). Adjustments are made to the raw cost data to take account of the influence that different average stage lengths and different aircraft seat densities have on the overall cost level (see Appendix A for more details about these adjustments). The analysis looks at how differences in costs have changed over the period 1996 to 2004 (though JetBlue is only included from 2000 onwards), adjusted for inflation.

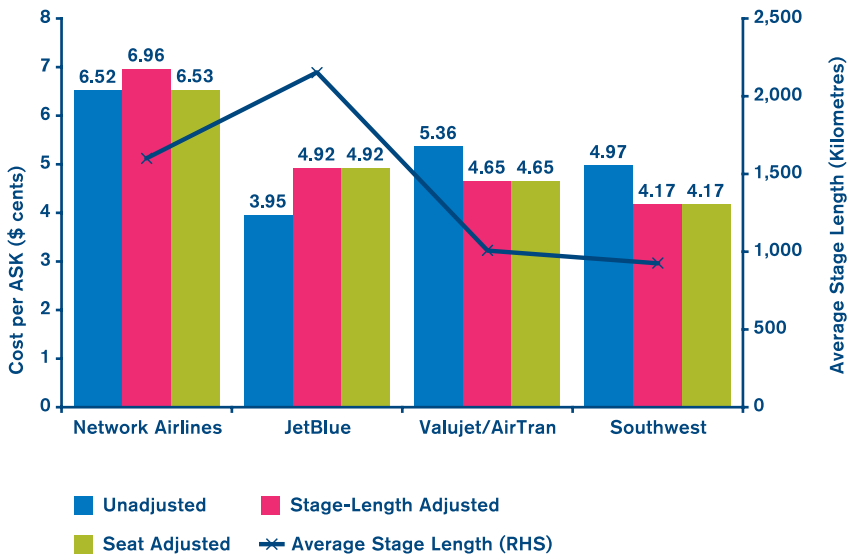
## THE COST GAP IN 2004

In 2004, the three network airlines had a cost gap, after adjusting for differences in stage lengths and seat densities, of:

- 25% with JetBlue (i.e. JetBlue's unit costs were 75% of those of the network airlines).
- 29% with AirTran (i.e. AirTran's unit costs were 71% of those of the network airlines).
- 36% with Southwest (i.e. Southwest's unit costs were 64% of those of the network airlines).

The comparison was undertaken after adjusting the raw cost figures to an average stage length of 1,400 kilometres. As the average stage length for Jet Blue and the network airlines was higher than 1,400 kilometres, their unit costs were adjusted upwards compared to the other two airlines (see Figure 4.1). The high fixed cost nature of the airline industry means that unit costs reduce as distances increase, so a stage-length adjustment is necessary to allow for a fairer comparison. An additional downward adjustment is then made for the network airline unit costs, as LCCs typically have 14% more seats placed on the same type of aircraft as a network airline (i.e. LCCs have more ASKs than network airlines for an identical journey using the same aircraft).

4.1: Operating Cost per ASK, 2004

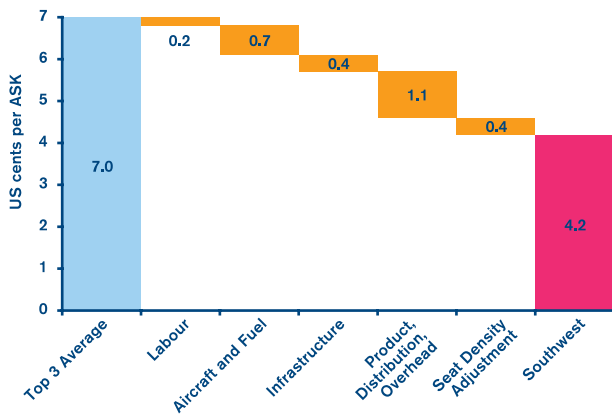


## THE NATURE OF THE COST GAP

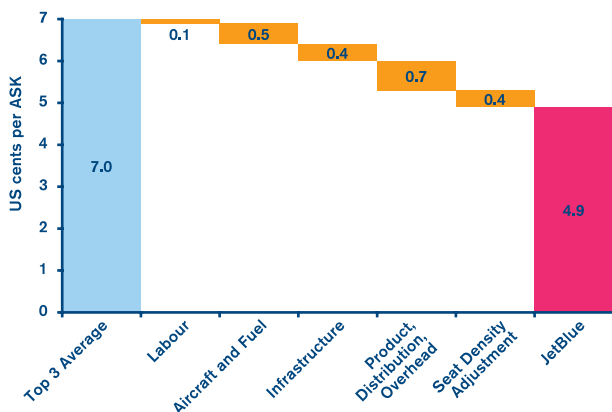
The Cost Gap between the network airlines and LCCs in 2004 is spread across a range of different categories (see Figures 4.2 to 4.4). In particular:

- The lower seat density used by network airlines is equivalent to adding 0.4 cents to total unit costs for each ASK (i.e. the difference between 6.96 cents and 6.53 cents in Figure 4.1).
- The reductions in labour costs by network airlines since 2001 (either directly through Chapter 11 protection or indirectly influenced by other airlines operating in Chapter 11) mean that the difference in labour unit costs (cockpit and cabin crew only) is now relatively small. Where there is still a difference, it largely reflects differences in labour productivity rather than basic wage rates. However, there may still be a difference in ground-based labour costs, reflecting the higher passenger service from network airlines, that would be included in the cost gap on the product, distribution and overhead cost category.
- In terms of aircraft ownership, operations and fuel costs, there was a sizeable gap of 0.7 cents per ASK with Southwest but smaller gaps with the other two LCCs. The LCCs have both a lower average fleet age and higher rates of aircraft utilisation (in terms of hours flown per day) than the average for the network airlines. Southwest also benefited from its fuel hedging strategy in 2004, whereas network airlines were largely unhedged against higher fuel costs.
- Average fleet age also has an impact on costs, with lower average fleet ages for LCCs in 2004 (9.1 years for Southwest, 3.3 years for AirTran, 2.3 years for JetBlue) than for the network airlines (12 years). Newer aircraft are more fuel efficient and have lower maintenance costs. Fast demand growth among LCCs has enabled them to place sizeable orders for new aircraft and to be more flexible in their delivery schedule.

4.2: The Cost Gap with Southwest Airlines, 2004

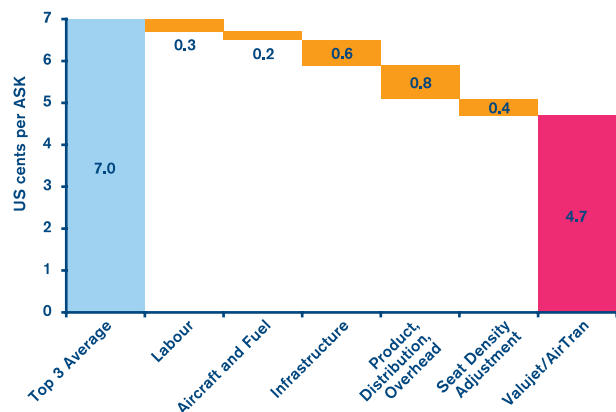


4.3: The Cost Gap with JetBlue, 2004



- There is only a relatively small cost gap in terms of infrastructure costs, largely reflecting the use of similar types of airports and the similar structure of payments to the FAA for air traffic control costs.
- Distribution, passenger service and other related costs account for the largest share of the cost gap with all three LCCs. While some of these additional costs reflect the different quality of service offered by the network airlines (e.g. connections at hub airports) there are also other areas (e.g. on-line sales) where further cost efficiencies can and are being sought.

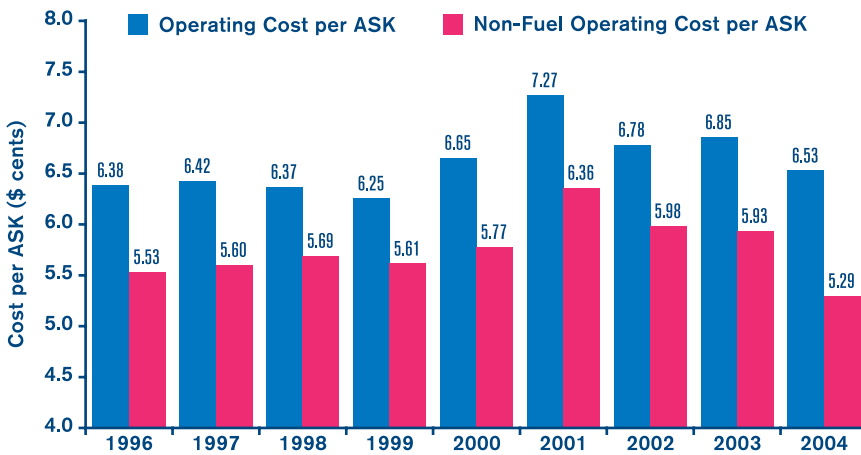
4.4: The Cost Gap with AirTran, 2004



## THE CHANGE IN NETWORK AIRLINE UNIT COSTS SINCE 1996

The network airlines have successfully reduced their unit costs by over 10% since 2001, with an even greater 17% reduction in non-fuel operating costs over the same period (see Figure 4.5). However, the improvements in unit costs have, so far, only reversed the increase in costs in the late 1990s. Unit costs in 2004 were still higher, in real terms, than unit costs in 1996, though there has been a reduction for non-fuel costs.

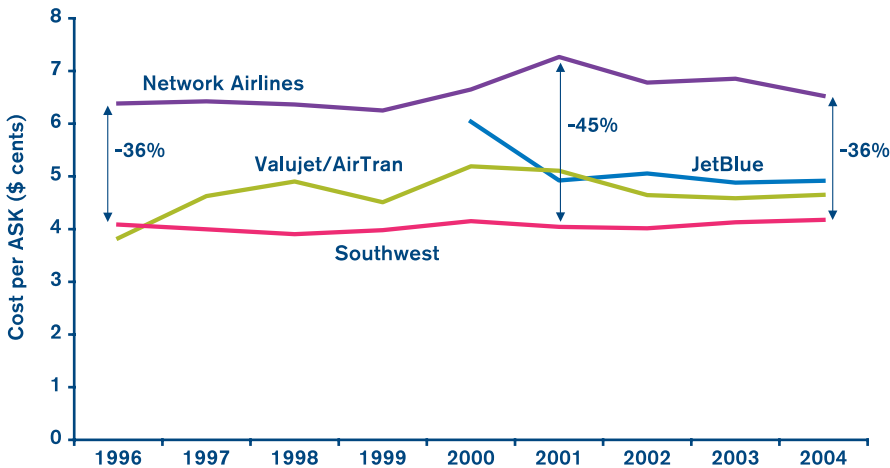
4.5: US Network Airlines Adjusted Cost per ASK, 1996 to 2004



## THE CHANGE IN THE COST GAP SINCE 1996

The cost gap between the network airlines and Southwest narrowed from 45% in 2001 to 36% in 2004 (see Figure 4.6). However, the cost gap in 2004 was identical to that seen in 1996. Southwest has managed to achieve a large degree of stability in its unit costs over the period, highlighting its effective cost control. Southwest's strong growth has helped its unit cost control, spreading fixed costs across larger operations and reducing unit maintenance and fuel costs as new aircraft are delivered. The cost gap with AirTran has fluctuated more over the period, though a sizeable gap still remains. JetBlue managed to lower its unit costs in the early years of its operation – driven by initial economies of scale – and managed to keep its unit costs relatively stable between 2001 and 2004.

4.6: Cost per ASK, 1996 to 2004

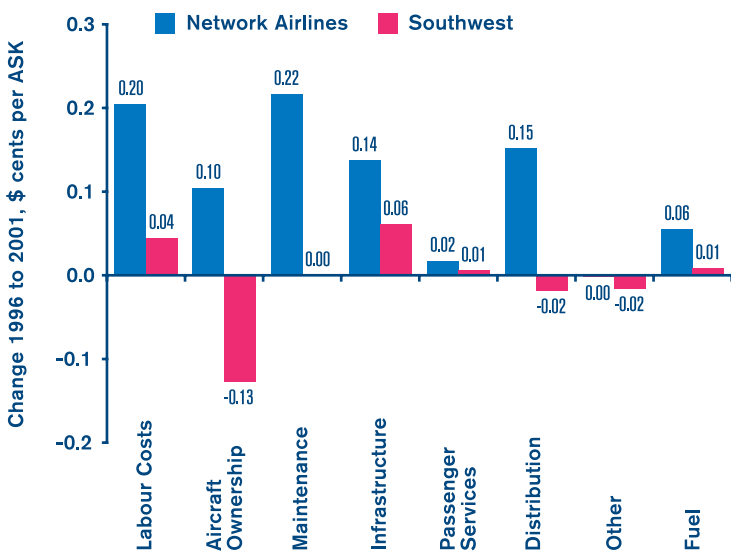




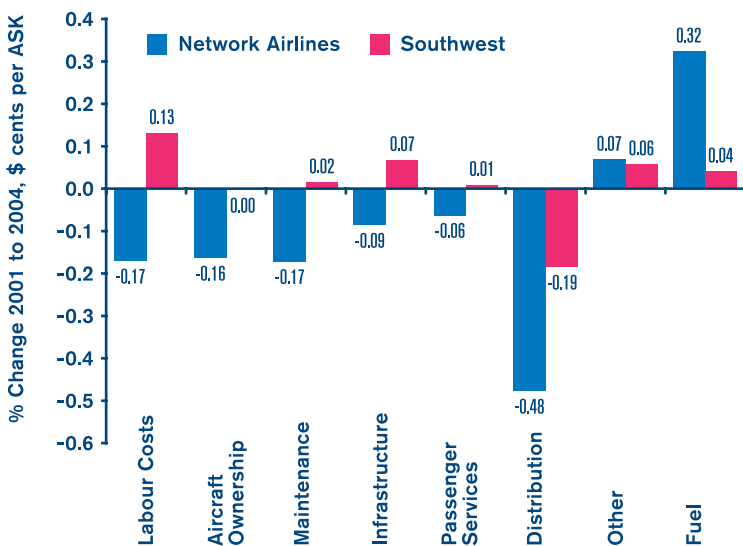
### THE CHANGE IN INDIVIDUAL COST CATEGORIES

There is a strong difference in the unit cost performance of the network airlines between the period 1996 to 2001 and the period 2001 to 2004 (see Figures 4.7 and 4.8). In the earlier period, unit costs increased across almost all categories, with the largest increases seen in labour costs and maintenance costs. By contrast, Southwest's unit costs were relatively stable, with slight increases in labour and infrastructure costs offset by greater efficiency in aircraft ownership costs.

The major financial pressures since 2001 forced the network airlines to seek efficiencies across all categories (though fuel costs continued to rise due to external factors). Significant progress has been made in reducing distribution costs, though savings have also been achieved on many other operational costs. During this period, Southwest's unit costs continued to be relatively stable, with higher labour costs offset by further savings in distribution costs. Southwest was also able to use its relatively strong financial position to limit the increase in fuel costs through fuel price hedging.



4.7: Change in Unit Costs, 1996 to 2001 (\$ cents per ASK)



4.8: Change in Unit Costs, 2001 to 2004 (\$ cents per ASK)

# 05 | Airline Cost Performance for European Airlines

European network airlines have managed to reduce unit costs since 2002, more than offsetting the increase in their unit costs in the late 1990s. A large proportion of the cost reduction has been on the sales and distribution side. However, there has been no cost convergence. European LCCs have also managed to reduce their unit costs, with the cost gap actually wider in 2004 than in 1997.

## THE KEY CONCLUSIONS OF THIS CHAPTER ARE:

- There is a sizeable cost gap between European network airlines and the leading LCCs. There is a significant cost gap of 64% with Ryanair, one of the lowest-cost airlines in the world, and smaller – but still sizeable – cost gaps of 40% with Easyjet and 32% with Virgin Express.
- The largest cost gaps exist in the infrastructure and passenger service cost categories. LCCs can achieve greater cost differentiation in Europe than in the US through the use of secondary or regional airports. European LCCs have also been among the first airlines to move towards complete on-line booking systems and have introduced charges for almost all on-board services and, in the case of Ryanair, for passengers checking-in luggage.
- European network airlines have reduced unit costs since 2001, especially on the sales and distribution side. Yet Ryanair, Easyjet and Virgin Express have also managed to reduce costs to a similar or even greater extent, while gaining revenue in some areas that are costs for the majors (e.g. charging for on-board catering). As such, the cost gap has actually widened since 1997.
- It is not possible to directly compare the level of unit costs with airlines in other regions (e.g. with US airlines), due to major differences in cost structures and stage lengths. However, the proportionate size of the cost gap is comparable. European network airlines have a larger cost gap to their LCC competitors than in the US.
- The larger cost gap in Europe reflects the aggressiveness of European LCCs in lowering costs and also suggests that there is substantial scope for European network airlines to achieve further cost efficiencies. However, it may also reflect a more successful differentiation between the network and LCC models in Europe, where higher network costs have helped to support greater customer differentiation in product quality and higher yields than for US network airlines (see Chapter 8).

## THE SCOPE OF THE ANALYSIS

For Europe the McKinsey analysis looked at the difference between the intra-European networks of the three largest network airlines (Air France, Lufthansa and British Airways) and three LCCs; Ryanair, Easyjet and Virgin Express. Information on each airline's costs and available capacity on intra-European routes was taken from IATA's Airline Economic Task Force database and from company accounts.

The analysis is undertaken for all of the major cost categories, enabling a clear picture to be built of where the key cost differences lie. Costs are compared in unit terms, with the cost levels expressed in terms of Euro cents per available seat kilometre (ASK). Adjustments are made to the raw cost data to take account of the influence that different average stage lengths and different aircraft seat densities have on the overall cost level (see Appendix A for more details about these adjustments). The analysis looks at how differences in costs have changed over the period 1997 to 2004 (1998 to 2004 for Easyjet), adjusted for inflation.

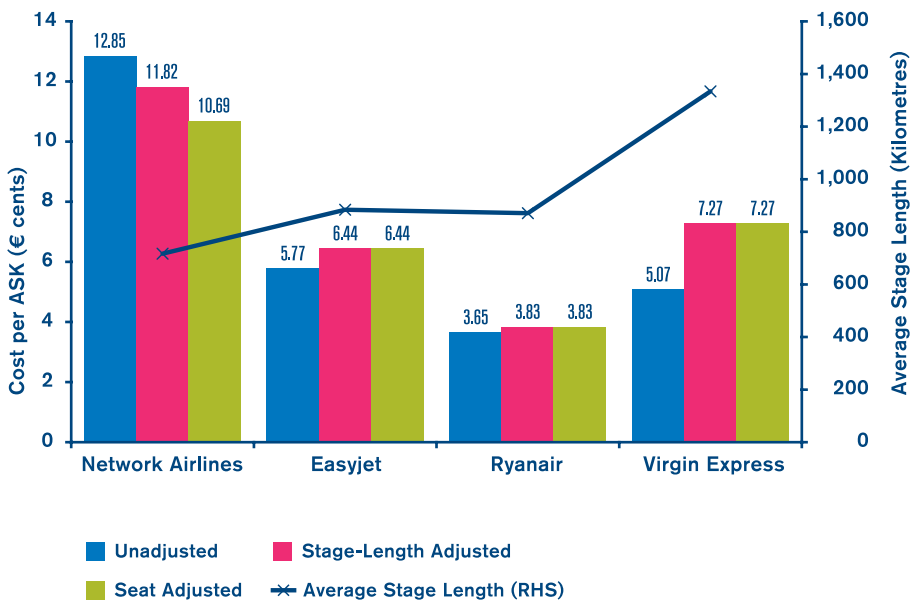
## THE COST GAP IN 2004

In 2004, the three network airlines had a cost gap, after adjusting for differences in stage lengths and seat densities, of:

- **32% with Virgin Express** (i.e. VE's unit costs were 68% of those of the network airlines).
- **40% with Easyjet** (i.e. Easyjet's unit costs were 60% of those of the network airlines).
- **64% with Ryanair** (i.e. Ryanair's unit costs were 36% of those of the network airlines).

The comparison was undertaken after adjusting the raw cost figures to an average stage length of 800 kilometres. As the average stage length for the LCCs is higher, their unit costs were adjusted upwards compared to the network airlines (see Figure 5.1). An additional downward adjustment is then made for the network airline unit costs, as European LCCs typically have 18% more seats placed on the same type of aircraft compared to a network airline.

5.1: Operating Cost per ASK, 2004

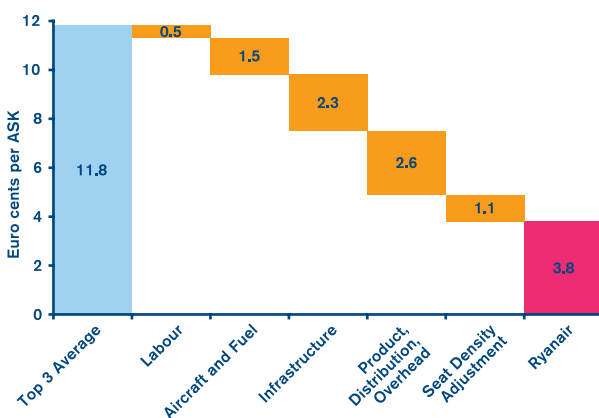


## THE NATURE OF THE COST GAP

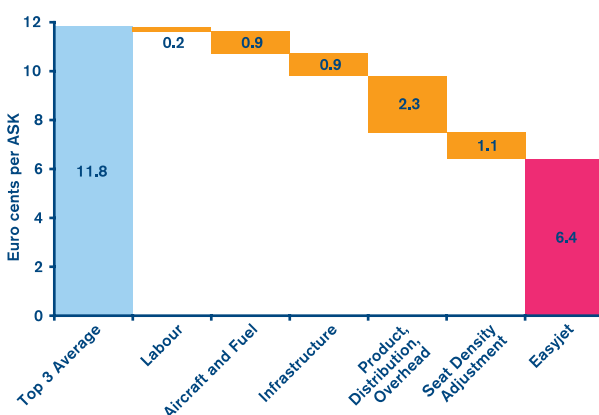
The cost gap between the network airlines and LCCs in 2004 is spread across a range of different categories (see Figures 5.2 to 5.4). In particular:

- The lower seat density used by network airlines is equivalent to adding 1.1 euro cents to total unit costs for each ASK (i.e. the difference between 11.82 euro cents and 10.69 euro cents in Figure 5.1).
- Differences in labour costs (cockpit and cabin crew only) account for only a relatively small proportion of the overall cost gap with the LCCs. As with the US airlines, where there is still a difference, it largely reflects differences in labour productivity rather than basic wage rates. There may be a larger cost gap among ground-based staff, reflecting the higher level of passenger service provided by the network airlines, though this would appear as part of the cost gap among the product, distribution and overhead cost category.

5.2: The Cost Gap with Ryanair, 2004

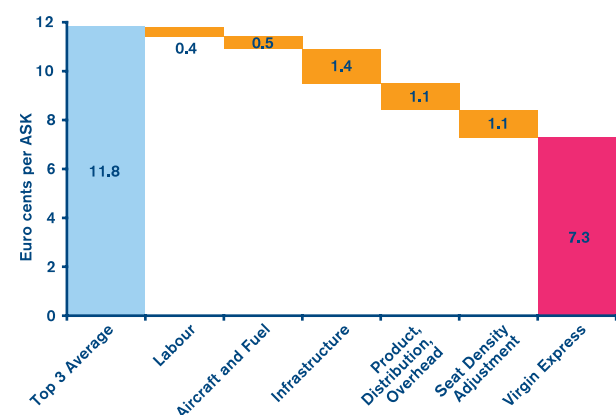


5.3: The Cost Gap with Easyjet, 2004



- In terms of aircraft ownership, operations and fuel costs, the gap ranges significantly from 1.5 euro cents per ASK with Ryanair to 0.5 euro cents per ASK with Virgin Express. The European LCCs, and Ryanair in particular, used the cyclical downturn after 2001 to order new aircraft at discount prices, helping to lower both average fleet age and maintenance requirements. LCCs were also relatively well hedged against higher fuel prices in 2004, though there was less of a gap with network airlines in this area than in the US.
- Average fleet age also has an impact on costs, with lower average fleet ages for LCCs in 2004 (5.2 years for Ryanair, 4.5 years for Easyjet) than for the network airlines (around 10 years). Newer aircraft are more fuel efficient and have lower maintenance costs. Significant new deliveries, bolstered by strong demand growth and anti-cyclical orders, have enabled Ryanair to reduce its average fleet age from 15.5 years in 1996 and Easyjet to reduce its average fleet age from 14.6 years in 1996.
- Infrastructure costs account for a larger proportion of the cost gap in Europe, especially for Ryanair. In particular, LCCs have used secondary or regional airports to lower their infrastructure costs.
- Large cost gaps exist for distribution, passenger service and other related costs, equivalent to 2.3 euro cents per ASK compared to Easyjet and 2.6 euro cents per ASK compared to Ryanair. A significant amount of these additional costs reflect the different quality of service offered by the network airlines and support higher yields (see Chapter 8). Network airlines have made progress in achieving efficiencies in sales and distribution costs (e.g. increasing on-line sales) but the success of the LCCs suggests that sizeable further improvements are available.

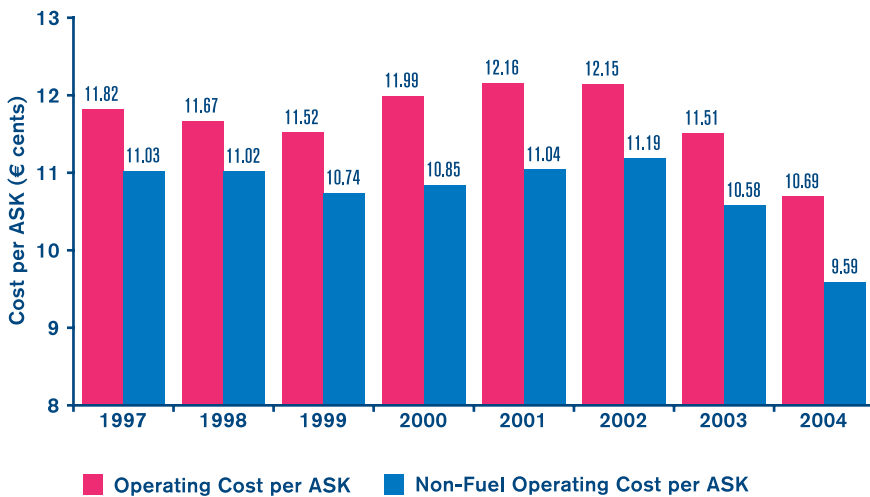
5.4: The Cost Gap with Virgin Express, 2004



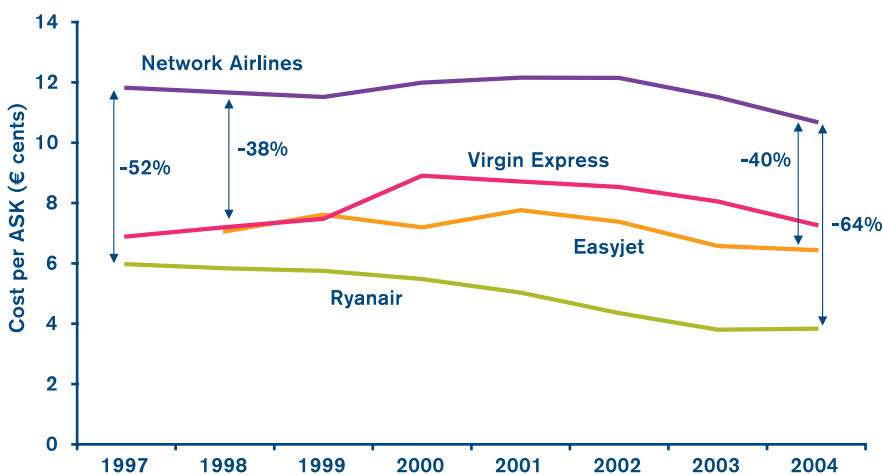
## THE CHANGE IN NETWORK AIRLINE UNIT COSTS SINCE 1996

The network airlines have successfully reduced their unit costs by over 12% since their peak in 2001, with a 14% reduction in non-fuel operating costs over the same period (see Figure 5.5). Network airlines have more than offset the rise in unit costs between 1999 and 2001, with unit costs in 2004 around 9% lower, in real terms, than in 1997. Proactive fuel hedging strategies from the network airlines helped them to avoid a significant impact from higher fuel prices in 2004, with fuel unit costs rising only slightly from 0.96 euro cents per ASK in 2002 to 1.1 euro cents in 2004. However, the further increase and persistence of high fuel prices since 2004 will result in a stronger fuel-related impact on unit costs in 2005 and 2006 (see Chapter 7).

5.5: Network Airlines Adjusted Cost per ASK, 1997 to 2004



5.6: Cost per ASK, 1997 to 2004



## THE CHANGE IN THE COST GAP SINCE 1996

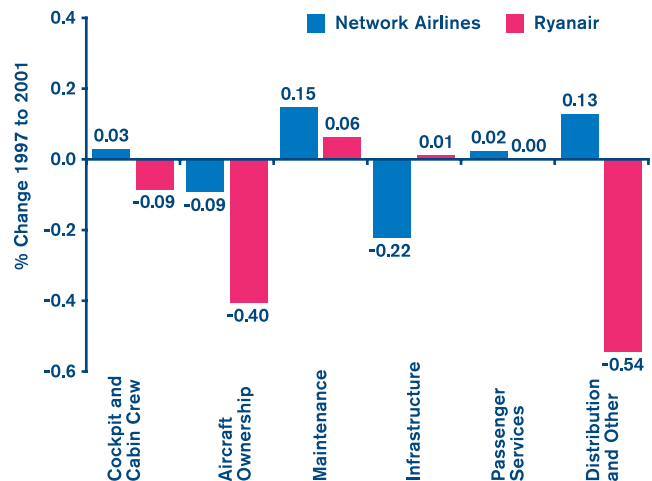
While the network airlines have made progress in reducing unit costs, the LCCs have also been able to lower their own cost bases. Ryanair continued to deliver further cost efficiencies from an already very low cost base, with its cost gap to the network airlines widening from 52% in 1997 to 64% in 2004 (see Figure 5.6). The cost gap with Easyjet has been more constant over the period, with Easyjet's business model giving it less scope to deliver savings through infrastructure costs than is the case with Ryanair. The cost gap with Easyjet has widened slightly from 38% in 1998 to 40% in 2004. Virgin Express saw its costs rise between 1997 and 2000, with its cost gap to the network airlines narrowing. However, between 2000 and 2004 Virgin Express were also able to reduce their costs, at a rate similar to the network airlines.

## THE CHANGE IN INDIVIDUAL COST CATEGORIES

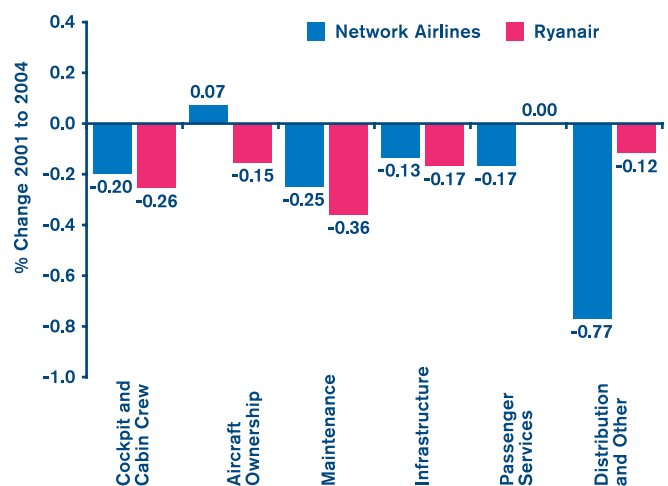
In common with the US network airlines, there is a strong difference in the unit cost performance of the European network airlines between the period 1996 to 2001 and the period 2001 to 2004 (see Figures 5.7 and 5.8). In the earlier period, network airlines were able to achieve some savings in aircraft ownership and in infrastructure costs, but these savings were offset by increases in maintenance and distribution costs. By contrast, Ryanair aggressively reduced its unit cost base, with large savings in its aircraft ownership and its distribution costs.

Since 2001, the financial problems within the global airline industry has forced the network airlines to seek efficiencies across all cost categories. Significant progress has been made in reducing distribution costs, though sizeable savings have also been achieved for labour and other operational costs. Nevertheless, during this period Ryanair has managed to reduce its unit cost base even further. Ryanair has lowered its costs across all of the main non-fuel cost categories, and has also increased the revenue it derives from charging for some passenger services that are offered as part of the service by the network airlines.

5.7: Change in Cost, 1996 to 2001 (€ cents per ASK)



5.8: Change in Cost, 2001 to 2004 (€ cents per ASK)





# 06 | Airline Cost Performance in Asia and South America

Competition from LCCs has emerged more recently in Asia and South America. Nevertheless, several new LCC airlines are now entering the market, adopting similar business models to those used by LCCs in the US and Europe, but also adapting them to local market conditions. Indeed, the weakness or unwillingness to change of some network airlines will encourage further LCC new entry. The leading LCC in both of these regions has already built up a significant cost gap over the network airlines.

## THE KEY CONCLUSIONS FROM THIS CHAPTER ARE:

**Though they have only a short history of operation, LCCs have developed large cost advantages over the network airlines in both regions. In 2004, the unit cost gap between Air Asia and a relevant network carrier was 68%, while the cost gap between Gol and a relevant network carrier was 47%.**

- Air Asia is an extremely low cost airline. Its very high aircraft utilisation – with average aircraft block hours per day more than 50% higher than the network airline – helps to reduce operational unit costs, while its use of secondary airports significantly lowers infrastructure costs.
- Gol is also a very low cost operator, and had the highest operating profit margin amongst all airlines, worldwide, in 2005. Its unit costs actually increased by nearly a quarter between 2001 and 2004 as it rapidly expanded its capacity and routes. Nevertheless, it retains a sizeable unit cost advantage compared to the network airlines, largely on the infrastructure and the sales and distribution side.
- Network airlines in these regions are only just beginning to respond to the challenges posed by the new LCC entrants. This response will often require significant structural changes for existing airlines and a shift in focus towards identifying and achieving cost efficiencies. Some network airlines have and will face severe financial difficulties as they lose market share to their low-cost rivals. However, experience in the US and Europe shows that network airlines can achieve greater cost efficiencies, sometimes by copying parts of the LCC model. Nevertheless, in meeting the LCC challenge, existing airlines must not lose sight of the higher quality of service and user benefits that they can provide and the premium revenue stream that it can be associated with it.

## THE SCOPE OF THE ANALYSIS

For Asia the McKinsey analysis looked at the difference between a large network airline based in the region and a fast-growing LCC, Air Asia. For South America the analysis compared a large network airline based in the region with a fast-growing LCC, Gol Linhas Aereas. Information on each airline's costs and available capacity on intra-Asian and intra-South American routes was taken from IATA's Airline Economic Task Force database and from company accounts.

The analysis is undertaken for all of the major cost categories, enabling a clear picture to be built of where the key cost differences lie. Costs are compared in unit terms, with the cost levels expressed in terms of US dollar cents per ASK in Asia and Brazilian Real cents per ASK in South America. Adjustments are made to the raw cost data to take account of the influence that different average stage lengths and different aircraft seat densities have on the overall cost level (see Appendix A for more details about these adjustments). The period of analysis is 2002 to 2004 for Asia and 2001 to 2004 for South America.

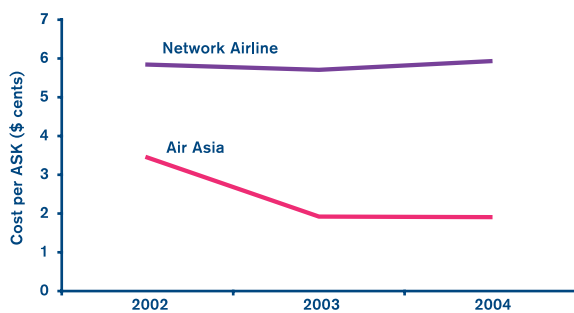
## THE COST GAP IN ASIA

The network airline had a cost gap with Air Asia, after adjusting to an average stage length of 1,500 kilometres and adjusting for different seat densities, of:

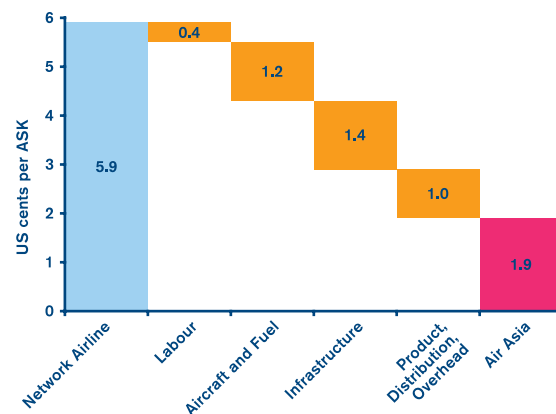
- **41% in 2002** (i.e. Air Asia's unit costs were 59% of those of the network airlines).
- **68% in 2004** (i.e. Air Asia's unit costs were 32% of those of the network airlines).

Therefore, the cost gap, that was already sizeable in 2002, has widened even further over the following two years. The unit costs of the network airline have been relatively stable over the period. However, Air Asia managed to deliver a 45% reduction in its unit costs between 2002 and 2004.

6.1: Cost per ASK, 2002 to 2004



6.2: The Cost Gap with Air Asia, 2004



## THE NATURE OF THE COST GAP IN ASIA

The Cost Gap between Air Asia and the network airline in 2004 is spread across a range of different categories (see Figure 6.2). In particular:

- Though Air Asia has very low labour costs, it accounts for only a small proportion of the overall cost gap with the network airline.
- Aircraft ownership and operational costs account for around a third of the difference. Air Asia's fleet is almost all leased, with a high average age, but its average aircraft utilisation per day is over 12 hours, over 50% higher than the network airline.
- There are also significant differences in infrastructure costs. Air Asia route strategy makes substantial use of secondary airports that help to reduce airport and groundhandling costs.
- As with other LCCs, Air Asia also retains a sizeable cost gap in product, distribution and overhead costs. Air Asia charges for all on-board passenger services and also has substantially lower ticketing, promotion and sales costs.

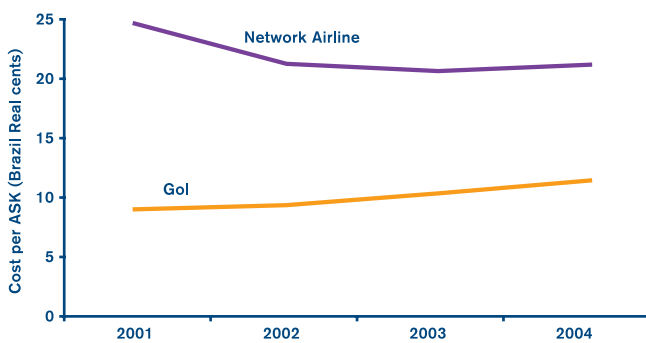
## THE COST GAP IN SOUTH AMERICA

The network airline had a cost gap with Gol, after adjusting to an average stage length of 1,200 kilometres and adjusting for different seat densities, of:

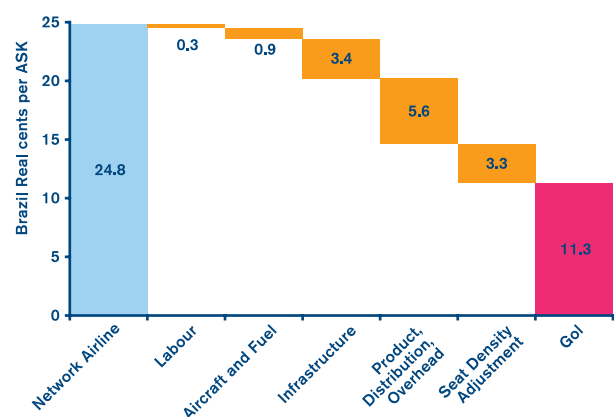
- **63% in 2001** (i.e. Gol's unit costs were 37% of those of the network airline).
- **47% in 2004** (i.e. Gol's unit costs were 53% of those of the network airline).

Therefore, the network airline has seen a degree of cost convergence between 2001 and 2004. However, most of this convergence has been due to a rise of nearly a quarter in Gol's unit costs as it has rapidly expanded capacity and moved into new markets. The network airline has reduced unit costs by 10% over the same period, but still has significant cost differences across a range of cost categories.

6.3: Cost per ASK, 2001 to 2004



6.4: The Cost Gap with Gol, 2004



## THE NATURE OF THE COST GAP IN SOUTH AMERICA

The Cost Gap between Gol and the network airline in 2004 is spread across a range of different categories (see Figure 6.4). In particular:

- As with LCC airlines in the US and Europe, Gol places a higher number of seats on similar types of aircraft than a network airline. This accounts for 3.3 Brazilian cents, though is not included in the overall 47% adjusted cost gap in Figure 6.3.
- Differences in labour costs and in aircraft operations are relatively small, accounting for only around a tenth of the overall cost gap.
- Differences in infrastructure cost account for around a third of the overall cost gap. Gol is able to derive significant savings in its airport and groundhandling costs through its route strategy.
- The main difference, accounting for over a half of the cost gap, is in product, distribution and overhead costs. Gol charges for all on-board passenger services and also has substantially lower ticketing, promotion and sales costs.

# 07 | The Cost Efficiency Challenge

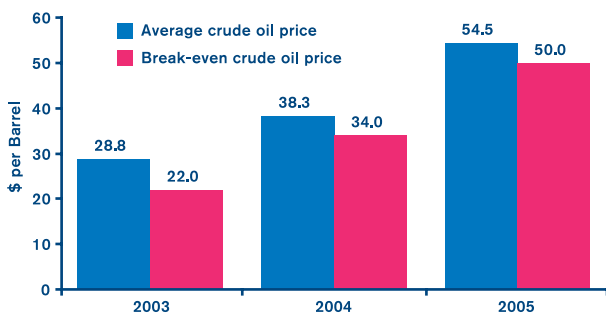
The sharp rise in jet fuel prices since 2003 has increased the urgency for airlines to improve their overall cost efficiency and productivity levels. The analysis in the preceding chapters shows that there are still sizeable cost gaps with the LCCs across several categories – and significant scope for network airlines to achieve further cost efficiencies.

## THE IMPACT OF THE RISE IN FUEL PRICES

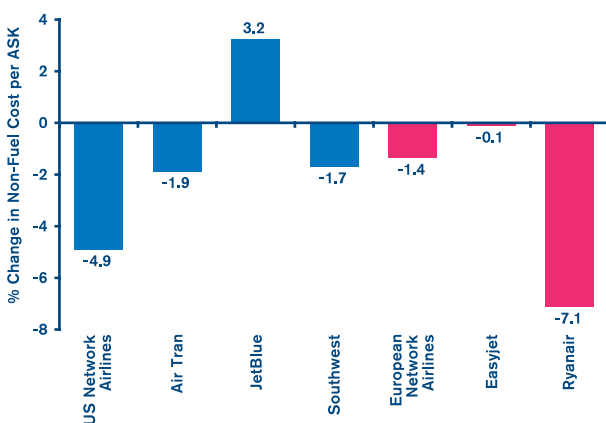
The emergence and growth of LCCs highlighted the need for many existing airlines to improve their cost efficiency. The sharp rise in oil and jet fuel prices since 2003 has added greater urgency to the need to make progress. The average crude oil price has increased from \$28.8 per barrel in 2003 to \$54.5 per barrel in 2005 and a forecast \$66 per barrel in 2006. With jet fuel prices rising at an even greater rate, the total fuel bill for the global industry has risen from \$44 billion in 2003 to \$91 billion in 2005 and a forecast \$113 billion in 2006.

The airline industry has used a combination of stronger revenue growth and higher efficiency gains to offset the large impact of higher fuel costs. However, though the industry has made substantial improvements it still faces a degree of “catch-up” with the actual oil price. The “break-even” oil price – the price of a barrel of oil at which, ceteris paribus, net profits would be zero – has risen from \$22 in 2003 to \$50 in 2005 (see Figure 7.1). However, the actual price of a barrel of oil was higher than the “break-even” price in each year, meaning that the industry made net losses.

7.1: The actual and “break-even” crude oil prices



7.2: The Estimated Change in Systemwide Non-Fuel Costs per ASK, 2004 to 2005



## ESTIMATED EFFICIENCY GAINS IN 2005

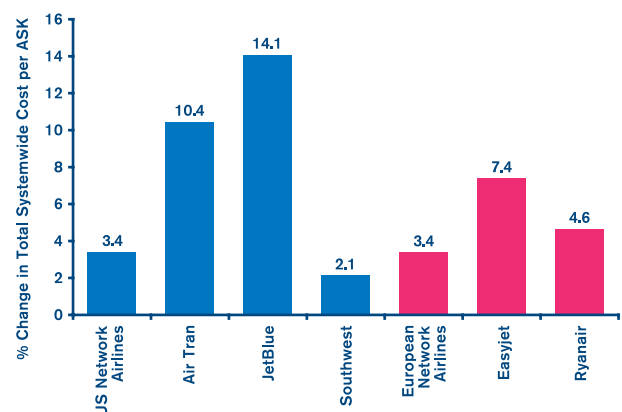
The full data is not yet available for an update to be made to the analysis in previous chapters for 2005. However, the published accounts of individual airlines can be used to estimate the change in their systemwide (i.e. all operations, not just the US domestic or intra-European routes) costs per available seat kilometre.

US network airlines, driven by their on-going restructuring programmes, managed to reduce systemwide non-fuel costs per ASK by nearly 5% between 2004 and 2005 (see Figure 7.2). Over the same period, AirTran and Southwest achieved 2% non-fuel cost efficiencies, while JetBlue saw non-fuel unit costs increase by over 3%. Southwest had a more comprehensive fuel hedging programme than the network airlines and was less exposed to the higher fuel prices in 2005.

European network airlines reduced their systemwide non-fuel cost per ASK by 1.4% between 2004 and 2005. This improvement in cost efficiency was higher than that achieved by Easyjet, but was lower than Ryanair who reduced their non-fuel costs by an impressive 7%. European network airlines had more extensive fuel hedging programmes than the LCCs.

However, the sharp rise in fuel prices in 2005 had a strong impact across all airlines, with total unit costs increasing for all (see Figure 7.3). Even for those airlines with fuel hedges in place, costs increased because new hedges were entered into at higher levels as the older hedges began to expire. For the smaller LCCs (e.g. JetBlue), the increase was even larger because of the larger proportionate share of fuel costs within their total cost base.




7.3: The Estimated Change in Systemwide Total Costs per ASK, 2004 to 2005



## DELIVERING FURTHER COST EFFICIENCY IMPROVEMENTS

Network airlines have made good progress in identifying and achieving cost efficiencies since 2001. However, as the financial pressure from high fuel prices and the evidence of cost gaps with LCCs highlight, the need for further cost efficiencies is a dynamic and on-going process.

**IATA will continue to represent, lead and serve the airline industry in identifying and delivering cost efficiencies, through campaigns such as:**

-  **Simplifying the Business.** The implementation of projects that will potentially save the industry US\$ 6.5 billion each year. The move to 100% e-ticketing by the end of 2007 is on schedule. Other projects will implement Common Use Self-Service terminals, Bar-Coded Boarding Passes, RFID baggage labelling and e-freight solutions.
-  **Fuel Efficiency Campaigns.** IATA's Fuel Action Campaign helps to improve airline's fuel efficiency through negotiating shorter and more efficient air routes, working with Air Navigation System Providers to improve operational efficiencies and using best-practice techniques to improve airline fuel efficiencies. A saving of just one minute on each flight can save direct fuel costs of over \$1 billion each year.
-  **A focus on Infrastructure Costs.** IATA campaigns to ensure that infrastructure providers also provide existing assets and new investment in a cost-effective manner. Where monopolistic pricing power exists, for example at some major European airports, IATA seeks sensible and effective regulation. Where inefficiency exists, IATA seeks clearer benchmarking and transparency of costs and will work in partnership with others to improve cost efficiency for all.

In addition, the examples provided by the LCCs highlight potential areas for further costs savings. An outline of various levers that LCCs have used to reduce costs across a range of cost categories is shown in Table 7.1. The list is not exhaustive, with numerous other techniques that have also been used by LCCs to lower costs or to increase non-fare revenue streams. However, the list does highlight the wide range of routes through which LCCs have been able to open the cost gaps highlighted in previous chapters. In general, network airlines would not wish to, or indeed be able to, replicate all of the levers included in the table. Nevertheless, in several areas there may be examples through which they can improve their own cost efficiency. For example, some network airlines (e.g. Aer Lingus) have successfully adopted many of these characteristics.



## 7.1: Typical LCC Levers for Reducing Unit Costs

Cost Category	Cost Item	Levers for Reducing Costs
Aircraft Ownership Costs	<ul style="list-style-type: none"> <li>▪ Ownership Structure</li> <li>▪ Fleet Structure</li> <li>▪ Aircraft Utilisation</li> </ul>	<ul style="list-style-type: none"> <li>▪ Anti-cyclical purchasing</li> <li>▪ Optimise owned / leased mix</li> <li>▪ Fleet harmonisation</li> <li>▪ Optimise mix of older and new aircraft</li> <li>▪ Reduce turnaround times</li> <li>▪ Reduce maintenance downtime</li> </ul>
Fuel Costs	<ul style="list-style-type: none"> <li>▪ Route Efficiency</li> <li>▪ Purchasing Costs</li> <li>▪ Weight Reduction</li> </ul>	<ul style="list-style-type: none"> <li>▪ Shorter en-route and approach times</li> <li>▪ Reduce delays, use smaller airports</li> <li>▪ Reduction in service fees</li> <li>▪ Use of fuel hedging strategy</li> <li>▪ Calculation of "no show" passengers</li> <li>▪ Through product innovation e.g. seats</li> </ul>
Maintenance Costs	<ul style="list-style-type: none"> <li>▪ Fleet</li> <li>▪ Service Costs</li> </ul>	<ul style="list-style-type: none"> <li>▪ Fleet harmonisation</li> <li>▪ Reduce average fleet age</li> <li>▪ Optimise maintenance activities</li> <li>▪ Joint purchasing of some work</li> </ul>
Crew Costs	<ul style="list-style-type: none"> <li>▪ Productivity</li> <li>▪ Wage-related Costs</li> <li>▪ Crew Costs</li> </ul>	<ul style="list-style-type: none"> <li>▪ Improved planning of crew logistics</li> <li>▪ Lower block hour restrictions</li> <li>▪ Fewer and/or less senior cabin crew</li> <li>▪ Reduction of extra-wage allowances</li> <li>▪ Reduce need for overnight stays</li> <li>▪ Reduce allowances for overnight stays</li> </ul>
Handling Costs	<ul style="list-style-type: none"> <li>▪ Service Level</li> <li>▪ Insourcing</li> <li>▪ Reduce Handling Fees</li> </ul>	<ul style="list-style-type: none"> <li>▪ Standardisation of SLAs</li> <li>▪ Revise SLA components</li> <li>▪ Pre-cleaning activities by cabin crew</li> <li>▪ Loading/unloading support from crew</li> <li>▪ Global contracts with key suppliers</li> <li>▪ Off-peak pricing</li> </ul>
Catering Costs	<ul style="list-style-type: none"> <li>▪ Reduce unit costs</li> <li>▪ Reduce volumes</li> </ul>	<ul style="list-style-type: none"> <li>▪ Simplification of meal choice</li> <li>▪ Reduce logistics costs for delivery</li> <li>▪ Monitor passengers vs available meals</li> <li>▪ Improve waste management</li> </ul>
Distribution	<ul style="list-style-type: none"> <li>▪ Ticketing</li> <li>▪ Sales Channels</li> <li>▪ Sales Commissions</li> </ul>	<ul style="list-style-type: none"> <li>▪ Development of E-ticketing</li> <li>▪ Self-service check-ins</li> <li>▪ Divert customers to on-line channels</li> <li>▪ Efficient customer service call centre</li> <li>▪ Target-driven contracts with agents</li> <li>▪ Reduce commissions</li> </ul>

# 08 | Service Quality – the Other Side of the Equation

While there are several lessons on cost-efficiency to learn from the LCCs it does not mean that network airlines must adopt their business model wholesale. Airlines offering additional services for which their target customer base is willing-to-pay will incur higher costs, the key is ensuring that these costs are delivered efficiently and economically relative to the premium in yields that higher service quality can attract.

A similar analysis to the cost per ASK comparison can be undertaken on the revenue side. This comparison looks at the unit revenues derived by each airline on the same type of routes (i.e. US domestic or intra-European). For LCCs, revenues include the income derived from charging for some passenger services<sup>9</sup>. Similar adjustments are made in terms of stage length and seat density to allow for a more accurate comparison.

## REVENUE PREMIUMS AMONG US AIRLINES

The three large US network airlines have managed to increase revenue per ASK on domestic routes since 2002 (see Figure 8.1), while also reducing unit costs. However, the revenue premium for network airlines over LCCs remains less than the cost gap. There was a 36% cost gap between the network airlines and Southwest in 2004, but the network airlines could only generate a 27% revenue premium. There was a 25% cost gap with JetBlue in 2004, but only a 9% revenue premium.

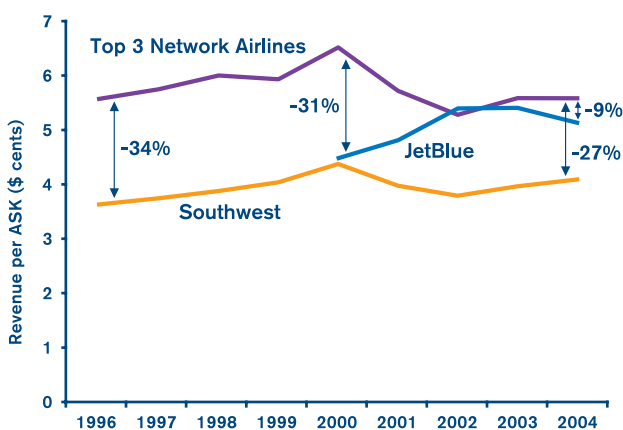
As such, operating profitability remains low or negative for the network airlines on these routes. The relatively low revenue premium reflects strong route-by-route competition with the LCCs in the US, but also reflects the difficulties many US airlines face in differentiating the quality of their product on domestic routes. As US network airlines have struggled to differentiate their product on domestic routes, they have chosen to reduce capacity in some areas, shifting the focus from market share to profitability.

## REVENUE PREMIUMS AMONG EUROPEAN AIRLINES

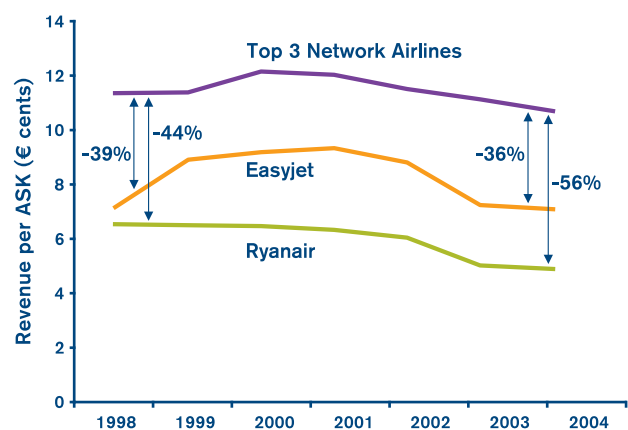
The three large European network airlines have managed to maintain a significant revenue premium over the major LCCs even as average yields have fallen from 2001 onwards (see Figure 8.2). As with the US airlines, the revenue premium is less than the cost gap, for example a revenue premium of 56% over Ryanair compared with a cost gap of 64%. However, in absolute terms, the revenue premium between European network airlines and LCCs is significantly higher.

The larger revenue premium for European network airlines only partly reflects slightly less competition<sup>10</sup>. European network airlines face direct competition from LCCs on around a third of their intra-European routes compared to 40% of domestic routes for US network airlines. It will also be influenced by the success among the three main network airlines of differentiating the higher quality of service provided compared to the LCCs, there being a much larger difference between network airlines and LCCs in terms of passenger service and network connections and frequencies in Europe than in the US. Nevertheless, as in the US, there are some regional or secondary routes from hub airports where European network carriers have found some difficulties in differentiating their product and have reduced capacity on the route (e.g. London to Salzburg, London to Trieste).

8.1: Adjusted Revenue per ASK for US airlines



8.2: Adjusted Revenue per ASK for European airlines



<sup>9</sup>Network airlines also earn additional revenues from passenger-related services (e.g. renting departure gates to smaller airlines, maintenance for third parties) though these are not included in the passenger revenues analysed in this chapter.

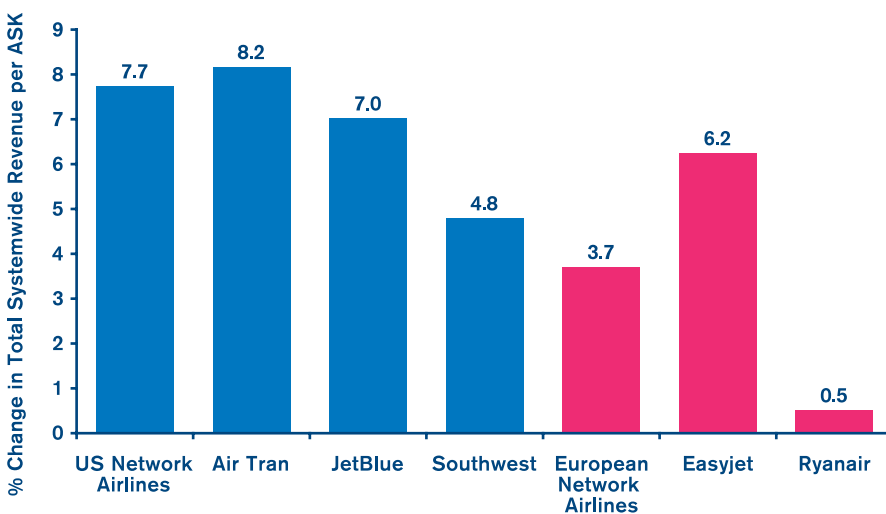
<sup>10</sup>Or in some cases regulation or restricted market access (e.g. slots availability). For example, Air France and Alitalia have recently won legal cases to support regulation that restricts LCC entry on some domestic routes and the Paris airports are slot-constrained.

## ESTIMATED REVENUE CHANGES IN 2005

Similar to the cost side, the full data is not yet available for an update to be made to the analysis in Figures 8.1 and 8.2 for 2005. However, the published accounts of individual airlines can be used to estimate the change in their systemwide (i.e. all operations, not just the US domestic or intra-European routes) revenues per available seat kilometre.

The US airlines saw the emergence of a degree of pricing power, with unit revenues increasing strongly for both network airlines and LCCs (see Figure 8.3). The reduction of capacity on domestic routes by the network airlines helped to boost yields, though higher yields were also seen on some long-haul routes. In Europe, the network airlines also managed to deliver higher yields, though the growth of 3.7% may also be understated as airlines such as British Airways do not report fuel surcharges within the passenger income category. Neither Easyjet nor Ryanair have imposed fuel surcharges, but while both saw an improvement in yields in 2005, Ryanair was typically more aggressive in passing on their non-fuel cost improvements to passengers, creating a competitive barrier to potential new LCC entrants on its routes.

8.3: The Estimated Change in Systemwide Revenue per ASK, 2004 to 2005





# 09 | Conclusions

The emergence and growth of LCCs poses significant competitive challenges to the network airlines. Significant progress has already been made in improving cost efficiency, with progress given more urgency by the rise in fuel costs, though large cost gaps still exist with the major LCCs. Further progress in reducing unit costs is essential but a complete move to an LCC model is not. There are still many competitive advantages in an efficiently delivered, higher product quality network model.

## This report highlights the following key conclusions for the airline industry:

### Greater Cost Efficiency is already being achieved by network airlines

US and European network airlines have managed to make progress in lowering unit costs (and particularly non-fuel unit costs) since 2001. Cost reductions, or at least stabilisation, have also been achieved by the network airlines examined in Asia and South America. A reduction in distribution and overhead costs has been the main driver, though cost efficiencies have also been achieved across several other cost categories. Nevertheless, the need for greater efficiency will be a dynamic and on-going process.

### LCCs can provide some important cost lessons for network airlines

Even with efficiency improvements since 2001, there are still large cost gaps with LCCs in all four of the regions. Cost gaps exist across a range of labour, operational, infrastructure and overhead costs, though the nature of the gap can differ by region. For example, there is less of a difference in infrastructure costs in the US than other regions, with less opportunity for LCCs to concentrate on secondary airports. The size and spread of the cost gap highlights there are several areas, from distribution to aircraft utilisation, where the network airlines can move closer to an LCC approach in order to lower costs. However, a wholesale imitation of the LCC model is only likely to be both feasible and desirable in a few cases.

### Governments and Suppliers also have a role in achieving cost efficiencies

The large gaps in infrastructure costs, especially in Europe, and the persistence of “structural” gaps in other categories highlight the importance of Governments and the aviation industry as a whole helping to improve cost efficiency. Airports and suppliers must also proactively seek greater efficiency in their operations. Governments must allow airlines greater freedom to restructure their operations and ownership on a commercial basis.

### However, the network model can also provide some competitive advantages

The higher product quality that can be offered by network airlines (e.g. network connections, flexibility, product comfort, more convenient airports, personal rewards through loyalty schemes) will incur some additional costs; though can also be used to attract customers willing-to-pay a premium for the additional service. Network airlines do still have advantages within their own business model, for example using multiple aircraft types to adjust capacity to prevailing demand conditions on different routes. In addition, the airline network itself provides several advantages over LCCs on many routes. For example, McKinsey estimates that network airlines alone connect smaller cities that contribute about 20% of intra-Europe traffic and 40% of US domestic traffic. Also, over half of all European long-haul traffic originates from short-haul traffic on feeder routes. Therefore, there are routes on which network airlines can invest resources to defend their competitive advantages.

### Airlines can seek an optimal mix between cost efficiency and product quality

“Efficient differentiation”, whereby network airlines improve cost efficiency but not at the expense of reducing the quality of service to the target customer base, can address both the cost and revenue side at the same time. Product segmentation can also be used, focusing on an LCC-type approach on some routes (e.g. regional services) but targeting the higher willingness-to-pay of business and leisure passengers on other routes. A careful balance is required. For example, spreading departures from hub airports across the day, rather than peak hours, can help to improve aircraft utilisation, reduce delays and save fuel and other costs. However, it can also reduce a customer’s willingness-to-pay, especially among business travellers who seek to minimise travel times.

### Network airlines can adopt a pro-active response in regions where LCCs are only just emerging

For regions where LCCs are still in their infancy, network airlines should note how LCCs have developed the cost gap across several categories in other regions and respond proactively. In particular, where a route demonstrates the type of characteristics for entry by an LCC (e.g. steady, point-to-point traffic) an airline can seek to pre-empt competition by adopting an LCC-type cost approach, lowering fares and generating new demand. The emergence of LCC competition will often require significant structural changes for existing airlines and a shift in focus towards identifying and achieving cost efficiencies. However, in meeting the LCC challenge, existing airlines must not lose sight of the higher quality of service and customer benefits that they can offer, provided that the additional revenues generated by a higher level of service exceed the additional costs incurred.

## APPENDIX A

**The Cost per Available Seat Kilometre (ASK) figures for individual airlines undergo two adjustments in order to provide a more accurate comparison:**

### → Stage Length Adjustment

The airline industry is a relatively high fixed cost industry. A large proportion of the overall cost base is fixed, at least in the short-term (e.g. infrastructure costs, distribution and overhead costs). Therefore, the industry unit cost curve is downward sloping with respect to the average stage length. In other words, as the average stage length increases there are more ASKs over which to spread the fixed costs, so total costs per ASK will reduce.

Consequently, an accurate picture of an airline's cost-efficiency would look not at its cost per ASK, but at its cost per ASK relative to the industry cost curve at the airline's average stage length. If an airline's cost per ASK is lower than the industry curve at a particular stage length then it is relatively cost-efficient compared to the industry average.

For a more accurate comparison between airlines, unit costs need to be adjusted to a common stage length. McKinsey undertook a regression analysis of the costs of a range of different airlines, beyond just those discussed in this report, to develop an estimated industry cost curve in each region. Each airline's unit costs were then adjusted by a factor equivalent to the difference on the industry cost curve between the airline's actual average stage length and the common stage length on which a comparison was made in the region. Airlines with an average stage length less than the average used for the region had their unit costs adjusted downwards, and vice versa. The adjustment factor was applied to all distance-dependent cost elements.

### → Seat Density Adjustment

An additional adjustment factor was needed to reflect the practice of LCCs of putting more seats than a network airline into an equivalent type of aircraft. For example, if an LCC has 15% more seats than a network airline and they both operate a Boeing 737 on the same route, then the LCC will automatically have 15% more ASKs and 15% lower costs per ASK than the network airline, even though it is an identical service.

To adjust for this difference in seat densities, network airline costs were adjusted downwards by a seat-density adjustment factor in each region. This factor was only applied where identical types of aircraft were used by the network airline and the LCCs and was only applied to aircraft operational and maintenance costs, excluding fuel.



## APPENDIX B

**In comparing between the costs of different airlines there are a number of accounting or financial issues for which a common resolution needs to be sought or an appropriate assumption made:**

### → Cost Structure Differences

**Issue:** No widely accepted cost reporting standards exist, with cost structure reporting not always consistent between network airlines and LCCs.

**Resolution:** Group cost elements into three main cost category groups or decompose relevant costs based on reliable estimates.

### → Allocation of Costs

**Issue:** For some LCCs, individual cost elements are allocated to different cost blocks that can make the cost items incomparable between airlines (e.g. Ryanair's heavy maintenance costs are included in Depreciation & Amortisation).

**Resolution:** Estimate the relevant cost item and move it to the main cost grouping.

### → Accounting Methods

**Issue:** Aircraft ownership accounting methods can vary, with aircraft leased or owned.

**Resolution:** All operating costs prior to the interest charges are included; interest charges for fleet purchasing are excluded due to the inconsistency of data.

### → Exchange Rates

**Issue:** Exchange rate changes can significantly impact on data values and can create misleading results.

**Resolution:** Find the largest and most common currency denominator for each regional comparison (i.e. US\$ for US, Euro for Europe, US\$ for Asia, Brazilian Real for South America).

### → Inflation

**Issue:** The change in costs over a period is also affected by the prevailing inflation rate.

**Resolution:** All values are adjusted for inflation to 2004 prices.

**Cost efficiency is critical for an airline's ability to compete and survive.**





Yet not every airline should seek to be the lowest cost operator. There are still many competitive advantages in an efficiently delivered, higher product quality network model.

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