

Low-Cost Carriers and Low Fares

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ABSTRACT

This analysis will examine the current structure of the domestic airline market to determine the amount of market power incumbent carriers wield, the market dynamics that exist in short haul and long haul routes, and the impact of a new breed of air carriers, the low-cost carrier, on the distribution of airfares. The analysis seeks to determine if the pricing strategies of competitors differ depending on a low-cost carrier's presence on a route. The presence of a low-cost carrier is a more important determinant of the competitiveness of a particular route than the extent of route and hub concentration on that route. Moreover, this paper argues that previous analyses overestimate the effect of route concentration, hubs and other route specific characteristics on the distribution of market prices. The emerging significance of the low-cost carrier may indicate a shift in the structure of the airline market away from hub-and-spoke networks and towards point-to-point networks.

INTRODUCTION

Since deregulation on airline (Opened Sky) the cost of air travel in US and Europe has fallen and the size of the airline industry has grown rapidly. However, Borenstein (1989) finds that high levels of route and hub concentration correlated with higher airfares. Thus, the low-cost carrier has become the new choice for travelers since 1990s in US and has become more favourite in UK and Europe in early 2000.

Therefore, this paper will describe the meaning of a low-cost carrier and the fundamental concepts for such a carrier. Moreover, it also will show some experience from US and UK low-cost carriers which would be beneficial to the Thai airline industry.

DEFINITION OF A LOW-COST CARRIER

This paper defines the low-cost carrier to be an airline that operates a point-to-point network, pays employees below the industry average wage, and offers no frills service. The two most prominent low-cost carriers, Jetblue and SouthWest, both have labour costs 30% to 40% lower than the mainline carriers. A traditional major carrier often has a number of tools at its disposal, which it can use to deter entry or lessen the competitiveness of recent entrants. These tools include predatory pricing, loyalty programs and congestion at the nation's most popular airports. Yet, these tools are not effective against low-cost carriers with point-to-point

networks. A low-cost airline can engage in Bertrand competition with a high cost competitor, without pricing at its own marginal cost. The low-cost carrier can successfully neutralize the dominance of its competitors by competing on price.

The lower cost structure can be quantified by aggregating the cost saving of point-to-point networks, wage saving, and saving from not providing numerous add-on services. While labour costs are the largest single cost items for airlines, there are many other costs. The pie chart in Figure 1 illustrates the composition of costs for the aggregate airline industry in 2000. The cost differential between the low-cost and major carrier is not only attributable to the wage differential. Although, the primary cost for any carrier is labour related. Controlling labour costs can improve the bottom line. The operating cost distribution below suggests that lowering labour costs by 10% can lower the average airline's total cost by 3.68%.

Figure 1 Airline Operating Cost Distribution

Source: Air Transport Association, 2001.

The lower cost structure of a point-to-point network is a consequence of a number of factors. They include: Airport congestion, which causes costly delay at hubs and is not as prevalent at airports used by point-to-point carriers. For every major metropolitan airport there are often two to three secondary airports. Low-costs carriers can achieve fast turnarounds and pay less for leasing airport facilities at secondary airports like the TF Green airport outside Providence, Rhode Island. Low airport lease rates and gate costs also contribute to

the lower cost structure of low-cost carriers. Under utilized secondary airports often levy lower charges for the use of their facilities.

In comparison, hubs require a large number of gates and personnel per flight, due to the banks of flights that are used at hubs. The banks of flights result in the majority of flights arriving and departing within 20-30 minutes of each other. These peak periods result in a high dependence on facilities and personnel for short periods of time. For example, at its Dallas Fort Worth hub American operates banks of flights to make connections convenient. While at neighboring Dallas Love Field Southwest spaces its flights out due to the lower emphasis it places on connecting traffic. Like other hub-and-spoke carriers, American Airlines has peak times when a considerable number of planes land at its hubs and passengers rush off to get on their next flight. The system provides customers a high level of convenience but creates operating inefficiencies. Employees stand around between peaks. Planes sit on the ground longer and get caught in line waiting to take off. The hub-and spoke structure raises an airline's costs at a hub compared to operating that same hub with a de-peaked structure. In particular, the higher number of personnel required per flight to effectively operate a traditional hub may be an

important factor in the different cost structure of traditional and low-cost carriers. "Spreading out peak travel times at hub airports by several more hours each day, a concept known as rolling hubs, may be one way to make operations more efficient" (Business Week Oct 23,2002). Major carrier American Airlines is experimenting with a rolling hub in Chicago in an attempt to achieve lower operating costs.

The two most prominent low-cost carriers, JetBlue and Southwest, both have lower labour costs than the large incumbent carriers. Analysts estimate that low-cost carriers such as Southwest and JetBlue have labour costs 30% to 40% lower than the mainline carriers. For example, United Airlines, American Airlines, Northwest Airlines and Continental Airlines all have costs at least 40% higher than Southwest. Although, Delta Airlines and Alaska Airlines have the lowest costs of the majors, each of them has unit costs 30% higher than Southwest's (Wall Street Journal Oct 9,2002). Table 1 provides a break down of costs and revenue on an ASM (available seat mile) basis for major and low-cost carriers. The comparison is the same for JetBlue, which has a cost structure marginally lower than Southwest's. Low-cost carriers have substantially lower unit costs; however, they do not have substantially lower unit operating revenue.

Table 1 Operating Cost and Revenue for Carriers of Interest

Domestic Carrier	Operating cost per available seat mile (cents)/2001	Operating revenue per available seat mile (cents)/2001
American Airlines	11.41	9.22
Continental Airlines	9.58	9.78
Delta Airlines	10.14	9.39
JetBlue Airlines	6.81	8.26
Northwest Airlines	9.78	9.17
Southwest Airlines	7.54	8.50
United Airlines	12.00	9.80

Note: All figures are for a twelve month period ending on December 31, 2001, except for the JetBlue figures which are of the first quarter of 2002.

Source: 10-K, for fiscal year ending on December, 31 2001 for each respective carrier, except for the JetBlue figures which are Sourced from the firm's 10-Q, for the quarterly period ending on March, 31 2002.

The lack of unionization among low-cost airlines can be characterized as a myth of the two largest low-cost airlines, one is unionized and the other isn't. Although, most of the Southwest's workforce is unionized and all of the Jetblue's is not, the aggregate cost structure of the two carriers is almost identical; unionization isn't necessarily correlated with high labour costs for low-cost carriers. These carriers also use fewer employees, because they operate point-to-point networks.

The third and perhaps the most obvious attribute of the low-cost carrier is the no frills service that these carriers provide to passengers. Instead of providing passengers with a menu of product choices priced within a range, the low-cost carriers offer a single type of product, coach service. Low-cost carriers do not provide meal on flights, which results

in a saving of 5 to 10 dollars per coach passenger. No meals equates to a saving of up to 3.2% from the average carrier's operating costs (see Figure 1). These airlines lack elaborate loyalty programs, which necessitate extra employees, to provide more personalized service, and expensive facilities, like airport clubs. Low-cost airlines do not provide costly services, which are only profit enhancing for a hub-and-spoke carrier able to extract a high level of rents from customers with a high willingness to pay, business travelers. The main advantage of the low-cost carrier is that it can compete on price with the high-cost traditional carriers. The functional structure of the low cost carrier is perceptible; moreover, this paper argues that the impact of this unique structure on the airline market is just as evident.

There is another low-cost carrier in UK which is called EasyJet

EasyJet's strengths in competing with the big airlines

EASYJET FARES STRUCTURE

EasyJet operates a very simple fare structure. All fares are quoted one way to allow customers the flexibility to choose where and when they would like to fly. EasyJet does not stipulate any restrictions to qualify for the cheapest fares (unlike most traditional airlines who will only offer cheap flights if the customer stays a Saturday night, therefore a cheap fare will not be available for a day-return business or shopping trip). The way we structure our fares is based on supply and demand and prices usually increase as seats are sold on every flight. So, generally speaking, the earlier you book, the cheaper the fare will be. Sometimes, however, due to market forces EasyJet fares may be reduced further.

The EasyJet booking system continually reviews booking for all future flights and tries to predict how popular each flight is likely to be. If the rate at which seats are selling is higher than normal, then the price would go up. This way we avoid the undesirable situation of selling out popular flights months in advance. That gives a better deal than if you flew with other airlines at the same time for the same journey.

How EasyJet offer lower fares

EasyJet offers a simple, no frills service at rock bottom fares. Fares can be offered at such good value due to the following main reasons:

EasyJet is a *Ticketless airline*. All you need to fly is your passport (or suitable photographic ID on domestic flights) and your confirmation number. This is less hassle for the customer, who does not have to worry about collecting tickets before traveling, and is cost-effective for EasyJet.

Efficient use of airport. EasyJet flies to main destination airports throughout Europe, but gains efficiencies through rapid turnaround times, and progressive landing charges agreements with the airports. By reducing turnarounds to 30 minutes and below, EasyJet can achieve extra rotations on the high-frequency routes, thereby maximizing utilization rates of its aircraft.

There's no such thing as a free lunch. So Easyjet does not offer one. Plastic trays of airline food only means more expensive flights. EasyJet passengers are given the choice as to whether they wish to buy themselves drinks or snacks from the in-flight EasyKiosk. Our customer feedback illustrates that passengers do not want a meal on board a short-haul flight. They prefer to pay less for the flight and have a choice to purchase snacks on board if desired.

CONCLUSION

In the current airline market, the impact of a new breed of air carriers, the low-cost carrier, on airfare is significant and broadly distributed.

The low-cost effect results in the compaction of price distribution and the lowering of the associated central tendency of those distributions across all market segments. Moreover, a low-cost presence may show a higher degree of competitiveness and decline in the relevance of concentration, frequency, hubs and capacity constraints in predicting market prices. The low-cost effect also brings a huge and measurable change across the entire distribution of airfares. The effect is likely to be significant and measurable for a

route of variable length. A low-cost presence lowers price at the low end, median and high-end of the price distribution on regional and long haul routes. In fact, the largest degree of flattening occurs at the high end of the price distribution. Thus routes with the highest levels of market dominance would experience the largest change in their distribution on regional and long haul routes. In fact, the large degree of flattening occurs at the high end of the price, with the entry of a low-cost carrier.

Moreover, a low-cost presence is estimated to cause a flatter price distribution, a higher degree of competitiveness and a decline in the relevance of concentration frequency, hubs and capacity constraints in predicting market prices. This new breed of air carriers disciplines the incumbent major carriers that rely on market dominance to extract higher rents to support the high cost basis of the hub-and-spoke networks these airlines use. The disciplining effect of low-cost carriers on the premium major airlines derive from hub airports may indicate that the higher cost basis of a traditional hub is no longer justified. Moreover, the low-cost airline model, which is built around using a point-to-point network, should continue to be a successful model for new entrants. While it is unlikely that any major carrier will completely abandon their hub-and-spoke networks, the partial dismantling of those hubs, in the form of de-peaking, will continue. Market forces have and will continue to cause these structure changes. Furthermore, there are policies that can accelerate this shift and the magnitude of the low-cost presence in the airline market.

DISCUSSION

This paper argues that a shift in critical thought is necessary to analyse today's airline industry; moreover, policies to encourage competition and flatter price distribution will only bring about change if these policies are designed to encourage a larger low-cost presence in the marketplace. Policies that try to reduce concentration levels or dismantle hub airport will face stiff political opposition. The estimated baseline results suggest that regulations targeting these factors would change the distribution of airfares. In reality, the concentration and hub effects are significantly smaller than this paper first proposed. Targeting these factors would not result in a dramatic change in the competitiveness of airline routes as measured by the shape and location of the fare distribution curve. Moreover, this kind of targeted policy would incite fierce lobbying by the major nationwide carriers. The recent success of these carriers to obtain multi-billion dollar subsidies from the federal government points to the strength of the corporate airline lobby and airline union lobby.

Given that traditional policies, which encourage lower levels of concentration, are relatively ineffectual

and politically infeasible, there is a viable alternative. Instead of attempting to reduce the impact of factors with a negative effect on the market, a successful policy must try to raise the impact of factors with a positive effect on the market. A viable policy must provide ample opportunity for low-cost entry in order to compact the fare distribution and return the rents to the American/European consumer. The primary barrier to low-cost entry is the lack of airport infrastructure at many of America/Europe largest metropolitan airports. In order to achieve the disciplining effect of a low-cost presence, the government should implement policies that encourage capacity constrained airports to build a new infrastructure. Moreover, regulatory barriers to airport expansion should be loosened. A lower level of airport expansion regulation would encourage airports to undertake the needed infrastructure improvements for increasing capacity.

A build out airport infrastructure, targeted at the most congested airports, would encourage low-cost carriers to enter a greater number of non-secondary markets. The newly constructed airport resources need to be allocated so that incumbent carriers do not receive a preferential claim to those resources. New resources alone do not discipline the market and compact the price distribution. Low-cost carriers must have access to those resources; otherwise, the infrastructure projects are nothing more than a subsidy for the major carriers. With greater access to the once congested markets, the low-cost effect on the market price distribution in these congested markets, should continue to increase in magnitude. Although, hubs still have higher fares than other airports, even when controlling for low-cost carriers, the significant role of the low-cost carrier in today's airline market indicates that dominance and market power do not go unchecked in the U.S/U.K. airline industry.

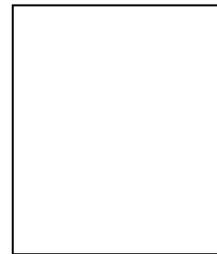
RECOMMENDATIONS FOR THE THAI AIRLINE INDUSTRY

According to some experience from the U.S. and U.K. airline industry, Thailand needs to develop as follows:

- Improve the airport infrastructure across the nation to encourage more new entry low-cost carriers
- Develop a higher standard online booking system and improve the call-centre for low-cost carriers
- Manage a reduction on ground service time for turnaround trips to save costs on airport services and slot management.
- Thai Airport Authority should decrease the fee for airport parking, which is the highest fee in a Southeast country, to encourage more play in the industry.
- Set up new regulations on low-cost carriers to improve the customer service system.

REFERENCES

- Air Transport Association. 2001. **Statement of Carol B. Hallett, President & Chief Executive Officer Air Transport Association of America Before the United States Senate Science, Transportation and Commerce Committee Hearing on Airline Labour Relations**. Online: January 25, 2003 <http://www.airtransport.org/public/testimony/display2.asp?nid=889>
- AMR Corporation. 2002. **American Hub Profiles**. Online: January 25, 2003. <http://www.Amrcorp.com>
- AMR Corporation. 2002. **From 10-K, For Fiscal Year Ended December 31, 2001**. Online: January 26, 2003. http://www.edgaronline.com/bin/edgardoc/finSys_main.asp?dcn=0000950134-02-001661&nad=
- Berry, Steven T. 1992. Estimation of a Model of Entry in the Airline Industry. **Econometrica**, Volume 60, No.4 (July): p889-917.
- Bittlemayer, George. 1990. Efficiency and Entry in a Sample Airline Network. **International Journal of Industrial Organisation**, Volume 8. No.2: p245-257.
- Borenstein, Severin. 1989. Hubs and Fares: Dominance and Market Power in the U.S. Airline Industry. **The RAND Journal of Economics**, Volume 20, issue 3: p415-436.
- Borenstein, Severin. 1990. Airline Mergers, Airport Dominance, and Market Power. **American Economic Review**, Volume 80, No.2 (May): p400-404.
- Borenstein, Severin. 1992. The Evolution of U.S. Airline Competition. **Journal of Economic Perspectives**, Volume 6, No.2: p45-73.
- Brock, James W. 2000. Industry Update: Airline. **Review of Industrial Organisation**, Volume 16, No.1 (February): p41-51.
- Donnelly, Sally. 2001. Blue Skies for JetBlue. **Time Magazine**. July 13th.
- Dresner, Martin E., Lin, Jiun-Sheng Chris, and Windle, Robert. 1996. The Impact of Low-Cost Carriers on Airport and Route Competition. **Journal of Transport Economics and Policy**, Volume 30, No. 3 (September): p309-328.
- Evans, William. 1993. Localised Market Power in the U.S. Airline Industry. **The Review of Economics and Statistics**, Volume 75, issue 1: p 66-75.
- Leahy, A.S. 1994. Concentration in the U.S. Airline Industry. **International Journal of Transport Economics**, Volume 21, No. 2 (June): p209-215.
- Levine, M.E. 1987. Airline Competition in Deregulated Markets: Theory, Firm Strategy, and Public Policy. **Yale Journal on Regulation**, Volume 4: p393-494.
- Meyer, John R. and Menzies, Thomas R. 2000. The Dynamics of Airline Pricing and Competition. **American Economic Review**, Volume 80, No.2 (May): p1-20.
- Morrison, Steven A. and Winston Clifford. 1990. The Dynamics of Airline Pricing and Competition. **American Economic Review**, Volume 10, No.3 (June): p389-393.
- Reynolds-Feighan, A. 2001. Traffic Distribution in Low Cost and Full-Service Carrier Networks in the U.S. Air Transportation Market. **Journal of Air Transport Management**, Volume 7, No.5 (September): p265-275.
- Richards, Krista. 1996. The Effect of Southwest Airlines on U.S. Airline Markets. **Research in Transportation Economics**, Volume 4: p33-47.
- Vowles, Timothy M. 2001. The Southwest Effect in Multi-Airport Regions. **Journal of Air Transport Management**, Volume 7, No.4 (July): p251-258.
- Whinston, Michael D. and Collins, Scott C. 1992. Entry and Competitive Structure in Deregulated Airline Markets: An Event Study Analysis of People Express. **The RAND Journal of Economics**, Volume 23, No.4: p445-462.
- Winston, Clifford. 1993. Economic Deregulation: Days of Reckoning for Microeconomists. **Journal of Economic Literature**, Volume 31, No.3 (September): p1263-1289.
- Windle, Robert and Dresner, Martin. 1999. competition Responses to Low-Cost Carrier Entry. **Transportation Research: Part E: Logistics and Transportation Review**, Volume 35, No.1 (March): p59-75.



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