

The Failings of the Scheduled Airline Market

Few airlines have proved to be good long-term investment in liberalized markets. As a whole the United States' airlines have failed to earn an overall profit since the passing of the Airline Deregulation Act, and the European industry has done little better. In an earlier academic paper that appeared in 1996, at a time when airlines seemed to be moving into a new age of financial viability, I argued that the nature of competition in the industry would inevitably lead to instability; a position that I expanded upon in the specific European context in a recent book, "Wing Across Europe". The argument is not profound, simply put, airlines, by committing to a service, incur fixed costs that subsequent competition to fill seats make difficult to recover. Traditional ways of circumventing this, such as yield management and frequent flyer incentives, have lost their potency as the Worldwide-Web makes fare information ubiquitous and as acquiring 'miles' loses its appeal as load factors rise. Low cost carriers have not helped the situation, but as they ultimately begin to compete amongst themselves they too will encounter problems of full cost recovery. The issue is thus one of retaining the consumer gains from market liberalization whilst at the same time inject greater stability into the airline industry.

By Kenneth Button

Introduction

The airline industry globally has been in a financial crisis for a number of years now. In the United States, at the time of writing, United Airlines, USAirways and ATA are all in Chapter 11 bankruptcy; American and Delta are teetering on the brink of following them, as are smaller carriers such as Independent Air. In Australia, Ansett has gone, and in Europe Sabena and Swissair are no

more, and other carriers such as Alitalia struggle to survive. Taking a longer term perspective, the United States' airlines have as an entity failed to recover their full costs over the past 25 years, and in many cases individual carriers have only survived, and then sometimes only briefly, through financial injections in what have retrospectively been seen as aberrations on the part of such normally astute businessmen as

Warren Buffet, Donald Trump, and Carl Ichan. The challenge is to initially understand more fully the way the deregulated airline industry functions and then to on to seeks was to increase its stability.

Some of the more immediate problems of the sector can be traced to short term effects such as sudden oil price rises, and certainly there are other market imperfections, such as labour union power and the monopoly powers enjoyed further up the value chain by airports, global distribution systems suppliers, and air traffic control systems, that have been a drain on the bottom lines of airlines. The argument here, however, is that even in the face of these difficulties, some of which may have been partly self-inflicted, commercial scheduled airlines will always have a struggle covering their full costs in a competitive market. But to pre-empt my conclusions, this should not be taken as any advocacy for regulating along the lines pertaining prior to the 1980s/1990s.



*Swissair and Sabena standing side by side at New York John F. Kennedy International
Photo by Michael F. McLaughlin*

The problems of excessive competition, that are germane to the argument, should also not be taken to imply that either much of the cost cutting that is taking is inappropriate, or that the underlying nature of the problem is one that is unique to airlines; it is certainly not.

The power various groups in the air transport sector have to exercise monopoly power, extra economic rent, and then ultimately to push this on to customers in higher fares has been rampant in past periods of regulated airline markets. Rate of return controls in pre 1978 United States gave little incentive for airline management to put up anything but token resistance to higher input prices, and the state ownership of flag carriers in Europe offered even sloppier reasons for cost economies. One thing that the recent serious financial crisis has done is put more backbone into management's efforts to control costs.

Additionally, much as many in the airline industry dislike hearing it, the industry is not unique in the challenges that confront it. Other industries, and notably those involving networks such as telecommunications and energy distribution, have experienced financial problems to varying degrees. Although the inherent causes of the difficulties lie in problems of fixed cost recovery, and are not strictly due to the network nature of these industries, there does seem to be a greater tendency at this time for them to be badly affected.

The State of the Airline Industry

The airlines of the world have gradually had to adjust their activities to a much more commercial and market oriented environment resulting from the gradual 'deregulation' of the industry that has globally cascaded down from the United States' 1978 Deregulation Act. While transition problems may have been anticipated, the initial changes in the world's largest air transport market are now a quarter of a century old, and notions of transition friction are really passé. Other markets have liberalized more slowly, but have had the opportunity of observing and learning from development in the United States;

only the most myopic of airline managers in Europe, for example, would have ignored the way United States' carriers reacted to reform.

It is also clear from the vast majority of studies that have been conducted that overall airline users have benefited from the removal of fare and entry controls in airline markets. Equally, the global expansion of air services has increased direct employment in the airline industry and in those industries that serve it. Many of the economic benefits of globalization would not have been wrought but for the expansion of both commercial passengers air service and cargo aviation. It is perhaps no accident that the world's poorest continent, Africa, has by far the worst air transport system.

The modern challenge is increasingly to exploit the social and economic benefits that air transport offers within a viable commercial framework for the airlines. Many argue that the current malaise being suffered by airlines is the result of poor management. The suggestion, even if the past follies of the industry in failing to combat the monopoly powers further up the value chain are discounted, is that airline management make poor decisions leading to excess capacity with the consequential inability to recover their costs. Setting aside the unlikely possibility that airlines attract particularly mediocre management, this type of argument confuses the actions of individual managers and the effects of market structure. The argument of poor managerial decisions is manifestly true from an industrial perspective, there are periods as now when there is serious excess capacity in the market, but from a company perspective it is difficult to see what other recourse any individual carrier has but to offer comparable capacity to rivals at the micro-level. If one carrier increases services the others need to match this to retain market share. Indeed, the conventional wisdom is that a failure to respond may well lead to a major loss of business given that flight frequency is a major service quality attribute in the eyes of consumers. Put in terms of game theory, the individual players may make the correct decisions but the outcome

may be undesirable because the rules of the game are flawed. The issue has often more to do with where the finance for the additional capacity comes from than the way management uses it; a topic revisited later.

Perhaps more important in explaining the mess airlines are generally in is what may be seen as the micro-micro analysis of full cost recovery at the level of the individual scheduled flight. It has been appreciated by economists for some 120 years, indeed since the work of Francis Edgeworth, that the convenient calculus often deployed in industrial organization analysis breaks down when a company has fixed costs to recover in a competitive market. It costs a lot of money for a firm to gear up, but once it does, each incremental unit of output is extremely cheap to produce; marginal costs are low. In the case of an airline, once it fills its planes enough to cover fixed costs, each additional passenger is enormously profitable. But there is a problem with this situation. These profits invariably entice new entrants. Capacity increases as a result, and fare wars begin. In desperation, airlines cut fares until some passengers are paying barely more than the cost of their meals; which these days often makes Nouvelle Cuisine seem positively filling. In these circumstances airlines no longer earn enough to cover their fixed costs, and they must merge, go bankrupt, or fade away. Capacity falls, fares rise, profits increase, and the cycle begins again. In the long term this is likely to lead to sub-optimally low levels of investment despite excess capacity often being a short-term problem during peaks in the business cycle. At the extreme, and if businessmen were fully rational and cognizant of all the facts, then few air services would be financed at all.

Why Airlines Are Now Finding it More Difficult to Recover Costs

First, this problem of full cost recovery should not be viewed as unique to the airline industry; it happens whenever there are fixed costs of supply in a highly competitive market. As pointed out by the Nobel Prize winning

economist, Ronald Coase over 50 years ago, here is no ideal or theoretically preferred way to deal with the problem and firms in most industries adopt a variety of ad hoc measures to deal with it. Essentially all involve some effort to gain even a short period of monopoly power to allow prices to rise above marginal costs. In some cases government seeks to help by giving subsidies or by limiting competition, but as has been seen around the world, such measures in air transport are hardly conducive to efficient management and can stifle the longer-term dynamism of the industry.

In the more market based airline markets of the past two decades or so, airlines have been remarkably inventive in handling this fixed cost issue, although they themselves probably thought they were acting to meet other objectives, such is the way of the 'invisible hand'. Actions such as the development of computer reservation systems (CRS), and with this the ability to engage in quite sophisticated yield-management, enabled the extraction of additional revenues from some customers that can be sued as a contribution to fixed cost recovery. Regularly frequent flier programs likewise allowed the pricing of regular travellers at fares above marginal cost and additionally added stability to the flow of revenue. Airline alliances and hub-and-spoke systems provided economies of market presence on the demand side, and with them additional revenues streams. Where possible, some carriers also modified their networks to concentrate their fleets on routes that retained a degree of institutional regulatory protection; e.g., under restrictive bilateral international air service agreements.

Technically, these actions gave the carriers that employed them an element of market power that tempered the degree of competition at the individual service level, and brought in money that contributed to the fixed costs of providing a guaranteed scheduled service. The airlines, however, more likely viewed these actions as ways of enhancing profits but motivations often are divorced from effect. The regulatory

authorities equally have traditionally been suspicious of these measures, and have in many places set controls over CRS systems, taxed frequent flier miles, and acted to limit mergers and alliances.

Whilst these actions to recover full costs, combined, with extremely favourable overall demand conditions, in the late 1990s, had a measure of success they have manifestly failed in more recent years. Changes in macro market conditions due to such things as the terrorist attacks on the United States, the SARS epidemic, and the second Gulf conflict have been contributory factors, but the financial problems of the airlines are ingrained in the structure upon which the commercial airline industry is largely built and this was already collapsing before these events.

The advent of on-line booking, coupled with the wide variety of search engines that have become available, while cutting airlines costs, also provides travellers with near full information about fare/service combinations. This significantly reduces the ability of airlines to 'price down' their demand curves and to extract maximum revenues from their customers. There is ample evidence in the United States, for example, that the fare distribution on any flight is now tighter and the average fare paid is lower. Frequent flier miles have become a less attractive incentive for loyalty as airfares in general have fallen, but also as their usefulness declines; with an 82% load factor, for example, United Airlines has numerous black-out days and frequent flier redemption seating is severely limited on many of the more attractive routes. The hub-and-spoke system of services is being attacked in many markets when low cost carriers offering low cost point-to-point services entry (or as in Europe, heavily subsidized high-speed rail services are provided). Entry of low cost carriers is reducing the yields of the legacy carriers even when they are not directly taking passengers.

Overlapping these trends is a perception that the old model of

legacy carriers, with their comprehensive full service operations, is out-of-date and that the low cost model with its unbundling of services is both the way forward and a means of bringing financial stability to the airline industry. Indeed, several legacy carriers have initiated their own low-fare subsidiaries.

Certainly, some low cost carriers (or no-frills carriers as they are known in Europe) have had some spectacular successes with Southwest in the United States and Ryanair in Europe, but some caution as to them offering some sort of panacea to counter the problems of the industry should be voiced (see figure 2 Southwest Ad). Beside the two much publicized successes, there have been very many failed low cost airlines, including ATA in the United States. The two carriers that are held up as pinnacles of success were first movers in their markets and followers have had to try to make less attractive markets work. Even these low cost carriers also have methods of employee remuneration that is conditional on continued profitability, and this has already posed problems when markets have stalled, even for short periods. Added to this, low cost carriers have largely been exploitive of new markets, or niche markets, that can generate considerable new traffic; the major impact on incumbents has been on yield as they have sought to maintain load factors, rather than on passenger numbers. Increasingly these opportunities are now drying up, and there is a gradual increase in competition between low cost carriers. The evidence is embryonic, but what there is suggests that in these cases the low cost airlines begin to compete for passengers using yield management tactics similar to the legacy airlines, and with equally weak effects on revenue streams as travellers simply seek out the lowest fares. Also keeping costs down has become more difficult for some low cost carriers, notably in Europe, as other players in the value chain, such as airports, are beginning to exercise countervailing power.

Essentially, the basic generic arguments put forward a 120 years ago about full cost recovery in a situation of near perfect competition would seem to be ultimately as true for the low cost carriers as much as the legacy airlines.

Is there a Solution?

So what is the future of the scheduled airline industry? One option is that the heavy and very visible hand of regulation comes back down again. But this seems unlikely on any large scale. The choice of services and the generally low fares that have accompanied deregulation are now too familiar to the travelling public for any may re regulation to take place. Indeed, the evidence seems to be that more liberalization is probable as bilateral air service agreements increasingly follow the United States Open Skies template, and as regional free trade areas in air transport services (such as the European Union) emerge.

Actions allowing full cost recovery for airlines is more likely to be founded within the industry than through outside, large-scale legislative intervention. In the past the industry has proved itself very inventive in the ways that have been devised to collect revues above marginal cost and it may be inventive again in the future. This would inevitably entail a series of actions that would change over time, rather than a single grand design, but there are inklings that change is occurring.

Whilst the more traditional forms of yield management have become less effective, more explicit forms of product differentiation have emerged. The low cost carriers are the most obvious manifestations of this but at the other extreme some legacy carriers are seeking to use their capacity is explicit high-yield premium markets with business class only services, or by up-grading their conventional business class offerings. The initiation of Orbitz in the United States and Opado in Europe can be seen as part of a larger movement by airlines to move up the value chain and to gain economic rents currently being enjoyed by other links in the chain. One effect of airlines engaging more in retailing, both directly and indirectly, has been a dramatic

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There is also another way of looking at the problem. In many cases it seems likely that members of a community are quite willing to pay for reliable air services but that the competition within the existing market structure may preclude this. The atomized demand of consumers can be seen as driving down the revenues that the scheduled airline service can earn. One way around this is to introduce more order into the atomized demand side of the equation, and have the potential users of air services buy seats as a single entity. This is what has happened in Wichita in the United States where local businesses combined to guarantee a carrier a certain level of traffic. Similar efforts were made at Strasbourg but public sector involvement made it illegal under European Union statutes. The

problems would thus seem to be more institutional than ingrained. Finally, if the worst comes to the worst, one should recall the thoughts of the American economist Frank Knight who in the late 1920s essentially said that there is normally a fool somewhere who will invest in any industry. The airlines have appeared unavoidably sexy in the past to many normally wiser investors and it could well be that this will continue in the future. Certainly in the United States, where a periodic visit to Chapter 11 is almost de rigeur for any self-respecting airline, there seems to be a perfect mechanism for extracting capital donations from such would-be excitable investors.

For a full account of these arguments see, Kenneth Button, "Wings Across Europe: Towards an efficient European Air Transport System", published in 2004 by Ashgate, Aldershot.