THE EFFECTS OF AIRLINE DEREGULATION

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Introduction

The regulation of markets, through some sort of intervention, has been practised by governments of all ideologies from the beginnings of economic history. While there is a widespread notion that such regulation is a modern phenomenon, the reflective observer will know that various types of agriculture production, manufacturing, banking, retailing, and transport, have long been subject to regulation of one sort or another by administrators. This has happened with the explicit approval of economists, who were virtually unanimous that if left entirely to their own, such activities could not be expected to ensure an optimum balance of wealth and stability.

Perhaps the modern phenomenon which has most provoked widespread adverse comment is the *degree* of regulation which the sophisticated modern centrist state has become capable of imposing. Leaving the controversialists apart, i.e. those whose pronouncements are skewed because of an ideological standpoint, most observers recognise that the *objectives* of regulation have been benevolent. But while achieving one positive aim, particular regulations may have had some other and unforeseen negative effects, which, in time, have provoked further intervention or regulation, with the complexity of modern regulation ensuing.

The cry for the restoration of market forces, or their installation as the primary governing influence, grows in volume. With the excesses evident in regulation-happy regimes, e.g. the committed socialist economies, the cry for the unfettering of market forces has gained strength and respectability.

In the ensuing debate, it is clear that the pendulum of thought has moved administrations from positions favouring regulation to ones tolerating or encouraging freedom. However, even the most committed libertarians

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IBAR—Irish Business and Administrative Research, Volume 8, Part 1, 1986, pp 38-47

accept one basic regulatory reservation where market forces get out of hand and where market logic leads to monopoly or oligopoly. The fact that anti-trust regulation can in essence be interference with market forces, and can result in overall diseconomies, is hardly recognised at all. The lesson here surely is that that impatience with some effects of regulation is not *per se* a sound argument for their total abandonment in favour of unfettered market forces.

The US Domestic Airline Market

In its infancy the US airline market needed regulation for many technical, and later commercial reasons, and to assist operators provide stable service in the public interest and, indeed, to require them to do so once they had operating licences. The regulatory framework was set up by the US Civil Aeronautics Act (1938) and amended by the US Federal Aviation Act (1958), at the heart of which was a Congressional Declaration of Policy which said that "in the exercise and performance of its powers" the Authority established by the Act shall *inter alia* have regard to:

> "The promotion of adequate, economical and efficient air service by air carriers at reasonable charges, without unjust discriminations, undue preferences or advantages, or unfair or destructive competitive practices."

Between 1938 and 1978, when the regulatory structure was to be dismantled by the Airline Deregulation Act (1978), the growth of US civil aviation was phenomenal. US air passenger traffic grew from over one million in 1938 to 267 million in 1978. Yet the industry for all its growth seldom achieved sound profit margins. In the decade before the Deregulation Act, i.e. 1967-1977, the US Air Transport Association computed that profit margins (operating revenue minus operating expenses as a percentage of operating revenues) averaged only 1.7% compared to 4.8% for US manufacturing industry.

Triggers to the demand for deregulation included the Civil Aeronautics Board's (CAB) management of a capacity crisis in 1970 when large increases in capacity (with the arrival of wide-bodied aircraft) coincided with a serious economic recession. The CAB placed a moratorium on all new route applications and authorised airlines to limit capacity by agreement on certain major routes. To many, at the time this seemed a classic case for intelligent state intervention; it is a measure of the pendulum swing, over a fifteen year period, that today's preferred solution to such a problem is to allow fare wars and airline bankruptcies to shake out capacity surplus. It may be a little early to conclude which of the two extremes is really in the long term public interest.

The Sub-Committee on Administrative Practice and Procedure of the US Senate Judiciary Committee, headed by Senator Edward Kennedy, published a report in 1975 which said that while the CAB's practices were effective in promoting airline growth, technological improvement and reasonable industry profits, they had not been effective in maintaining low prices. The first airline deregulation bill was sponsored in the same year, leading to the eventual Deregulaton Act of 1978 during the Carter administration.

Deregulation

A report from the US General Accounting Office in November 1985 succinctly summarised the purpose of that Deregulation Act — "to allow competitive market forces, rather than the federal government, to decide the quality, variety and price of domestic air service".

The change in the United States following the 1978 Act was total, and elsewhere a trend towards the unfettering of market forces also began. There has been almost eight years of deregulation in the US airline industry, but surprisingly, full consensus on the experiment is still not available. Economists Morrison and Winston (1986) concluded that "virtually all (consumers) have benefited from deregulation". The 1985 report of the US General Accounting Office is less positive: it notes that "some favourable trends in fares and services have emerged . . . . but the overall trends mask some offsetting results". A substantial study by Brenner, Leet and Schott, (1985) stated that "after six years of deregulation, it is still not possible to render a final verdict on whether, on balance, deregulation is producing a domestic air transport system better or worse than previously existed". All studies conclude that "more passengers are receiving better service under deregulation than are receiving lower service levels". The main area of service deterioration has been for small or medium-small communities, or those where traffic was thin (which in the Irish context would probably mean all European services other than Dublin-London). The effect on airlines is another matter.

On pricing, the Brenner *et al* report mentions that deregulation has "resulted in wide disparity between markets: "the more visible and publicised price wars on some routes have been offset in other routes where prices have doubled or more than doubled in the past six years . . . . The disparities in fares are primarily related to differences in competition and cannot be fully explained by differences in costs". A prime consideration of the defunct CAB was that prices would always be cost related.

In fact, in this pricing area which is the primary concern of consumerist bodies, an extraordinary change has taken place. Some cross-subsidisation of routes has long been a practice in various transport modes, with strong routes bearing full charges while weak routes survive on a marginal cost basis. In effect this involves the strong subsidising the weak.

In the pricing turmoil of the totally deregulated US airline scene, this has been put into reverse. The Eno Foundation study pointed out that:

> "on less competitive routes, fares have increased greatly — often by over twice the overall *average* fare inflation. This has not been a case of deliberate "grouping" of passengers on less competitive routes; those increases have been necessary for carrier survival, in the effort to balance the competitively driven, below-cost fares on other routes".

In a recent unpublished address Brenner, the co-author of the Eno Report quotes an example of the resulting disparity: "This winter (1985/86), while you could get an unrestricted coach ticket for $99 for the 2500 miles trip from NY to LA, it would cost you $250 to travel the 583 miles from Chicago-Harrisburg, a rate which is ten times higher than that for the longer trip. Moreover, the shorter trip had become four times more expensive over the seven years of deregulation, while the price on the long haul route — particularly at times of intense price-cutting — had actually fallen. On another occasion in recent years, as reported in Airline World (1986), it was cheaper to fly from New York to Los Angeles than to fly from New York to Albany, the capital of New York State.

But these anomalies do not disprove the general view that deregulation has placed a pressure downwards on passenger fares and costs in most markets, and for the simplest of reasons — competition or the threat of competition from carriers who see the opportunity for profitably entering the market at a lower cost than the incumbent.

The overall effective reduction in passenger fares as a result of deregulation is therefore a matter for conjecture. Furthermore, airline scheduling practices, and a tendency towards an increased use of smaller and therefore higher seat-cost aircraft than in pre-deregulation days, have changed the basic economics of the product.

Cost Effects

The effect of competition has had an indisputable effect on airline labour costs. Protracted industrial disputes have taken place over efforts, many of them successful, to reduce pay scales, and the phenomenon of two-tier scales with new staff being less well paid than previous staff has been introduced in many airlines. "Chapter 11 bankruptcy procedures" have been used by airlines to break union contracts and re-employ much reduced staff numbers at pay scales as low as 50% of previous rates.

Observers outside the United States (and particularly in the EEC) might reflect on the practicality of such a draconian approach to the reduction of labour costs in their own communities. And if this is a method of cost reduction which is acceptable to the community, where should it start and when should it stop?

The effort of US airlines to get their costs and revenues into equilibrium has produced a chaos in route planning and scheduling which is comparable to that in the pricing sphere. No airline operates a network today even approximately resembling that which it operated before deregulation. United Airlines which seems to be one of the strongest survivors, at the top of the league of US carriers, has abandoned two-thirds of the non-stop routes it operated before 1978. It dropped 408 routes and added 375 new routes. Another airline, Frontier, retained only 103 of its pre 1978 routes, dropping 416 and adding a new 219.

The fact that the aircraft is an asset which can be moved from market to market is obviously advantageous to the competition process but European observers must wonder to what extent it is an essential feature, and whether a similar degree of asset mobility would be feasible among sovereign independent states.

Lessons from Deregulation

What can be learned from the profit records of the airline industry since the 1978 Deregulation Act? Generally the US airline industry was very unprofitable during the first five years of deregulation. The 1979 escalation of fuel prices and the economic recession were complicating factors. Another was the air traffic controllers' strike and its aftermath, which helped the industry in a period of depressed demand by forcing it to cut back capacity. However, even though a few airlines did reasonably well, the great bulk of the industry's operations lost heavily during the five years. Heavy losses in early 1983 provoked the comment "The ruinous price wars are just one sign of the chaos that has overtaken the industry since the Airline Deregulation Act of 1978" [Time, (1983)]. For a time after this period it seemed that right was on the side of those who said that kamikaze price-cutting was merely symptomatic of an industry that had little tradition of independent pricing and which would learn with experience. As Brenner (1986) said: "the fare-cutting haemorrhage eased off to a slight trickle in place of the arterial gushing we had seen before".

There was profit recovery in 1984 and early 1985, but then towards the end of 1985 full-scale fare wars resumed. In the last quarter of 1985 the results of almost all significant carriers plummeted and this continued into the first quarter of 1986. Fourteen of the sixteen national carriers which returned their first quarter results suffered net losses of around $650 million (Source: Aviation Daily, Monday, May 5). The most successful of the low cost new entrants, People Express, showed a first quarter net loss of $58 million compared to $18.8 million in the first 3 months of 1985. Neither economic recession nor fuel price increases can be blamed for this industrywide deterioration in results.

Brenner suggests that the answer may lie in the supply-demand relationship in the airline business, which does not conform to the neat diagrams of economic texts, but for which supply and demand are never expected to be in full balance. A load factor of 75%, such as Aer Lingus has been able to achieve on a few of its routes, is well above industry averages and 65% is a respectable target in the US. At 65% Brenner points out there is one empty seat for every two occupied, and that this is a perennial surplus of inventory — one which is instantly perishable. Furthermore, the marginal cost of placing a passenger in one of those empty seats is negligible. Putting those ingredients together — perennial surplus, instant perishability and negligible marginal cost — "you've got the fuse of a fare war, just waiting to be lit" [Brenner, (1986)].

The fare wars of winter 1985/86 have had repercussions in the industry which add a new significance to the warnings of Frank Borman, President of Eastern Airlines in 1977. He foresaw that deregulation would bring about a situation where the airline industry would in some years be dominated by four or five major carriers. Recent trends are towards an "aggregation of market power in the United States" (Flight Magazine, 29 March 1986). One of the victims of this process has been Frank Borman's own Eastern Airlines, which swung from being recommended for stock purchase in April 1985 by the highly reputable firm of Salomon Brothers to a forced sellout to Texas Air to avoid a March 1986 default on major borrowings. There is wide agreement on the cause — the vicious fares wars reaching unquestionably below cost levels in New York-Miami.

The Hub and Spoke Trend

The aggregation of power has had more to it than threatened bankruptcies. A further factor leading to mergers and acquisitions has been the impact of the "hub and spoke" system of airline scheduling and developments in the distribution of airline seats to the market. The need to dwell on these matters derives from the virtual certainty that combined they will defeat the purpose of the Deregulation Act, i.e. to bring competitive market forces into play as the deciding force in determining the shape and performance of the future airline industry.

The "hub and spoke" development in US airlines was not entirely new. There were always major "hubs" or centres of business from which airlines served several other airports. But what has happened is that, with freedom to open services without licensing requirements, airlines have exploited a strong position in a particular airport to feed in traffic from other points to their principal routes and disperse that traffic on arrival, upstaging weaker rivals. In fact, the "hub and spoke" system, which has been much vaunted as an achievement of US deregulation, parallels the long established European pattern of scheduling into and out of capital cities. Just as the European traveller has been accustomed to travel to his ultimate destination via Paris, Brussels, London or Zurich, the US traveller is now increasingly flying via "hubs" such as Dallas/Forth Worth, St Louis, Denver, Chicago, Minneapolis. The hub-and-spoke developments give a further illustration of the mobility of US airlines in the post-deregulation era. Since 1978 TWA has doubled its fights at its St Louis hub but reduced its daily departures at Pittsburg by 90%. The important point is that if an airline can achieve a dominant position at a hub, it can effectively become impregnable to competitive intervention. This is helped by the growing number of airports that are experiencing congestion in "slots" or in "gates". The system of allocation of "slots" by an airline scheduling committee has been discontinued (as anti-competitive) at several airports — Washington, Chicago, La Guardia and Kennedy — and since 1 April 1986 the airlines holding slots are to be free to offer their "slots" for sale to another airline bidder or (as may well happen) to hold them idle or buy out additional slots to bolster a dominant position.

Elizabeth Bailey, a former Vice-President of the CAB and now Dean of the Carnegie Mellon Business School, recently completed a study demonstrating that a carrier controlling 70% to 80% of the volume at an airport will almost certainly be profitable [Bailey (1985)]. The concentration of local power in one airline has been colourfully refered to in Fortune magazine: "the super carriers of tomorrow will benefit from economies of scale but, more important, they will *control turf*" [Fortune (1986)].

Effect on Ticket Retailing

Changes in the distribution system or, more simply, changes in the method of retailing airline tickets, have also occurred as a result of deregulation. There has been an explosion in travel agency numbers and outlets to a total present number of 27,000. Airlines have developed central reservations systems (CRS) for installation in agencies and their own outlets. The two giants, American and United, developed the major systems Sabre and Apollo, and sell their systems for the use of other airlines by imposing a charge per booking made. Protests against bias in the display of flights on the Apollo and Sabre systems and against excessive profits taken by their owners were investigated in the dying days of the CAB. Its ruling tried to strike a balance which was felt to be sufficient to alleviate the major problems identified (Aviation Daily, June 1984). A by-product of that ruling is that for many carriers the cost of participation in CRS systems increased. But the power of the CRS is one of the vital weapons that the new breed of super-carriers can hold. It must surely have been a factor in the recent rescue and buyout of Eastern as, with the third biggest CRS (after Sabre and Apollo), it was an attractive additional asset for its purchasers.

In the marketing area, another threat to the 1978 competition ideal is the possibility that the freedom airlines now have to discount their product directly to selected customers will create new concentrations of power. Corporate giants like AT&T and IBM each control travel budgets of hundreds of millions of dollars. They know the bargaining leverage they can use on airlines. They can offer to give all their travel to a particular airline major, or as much as it can handle, in exchange for a deeper discount than competitors would make available. In the regulation days, such deals would have been illegal. There is a particular irony in a discount war for corporate travel. Unlike the leisure market, discounts to corporate accounts are unlikely to stimulate new travel. It will result inevitably in revenue erosion, and in time must force increased fares for the individual customer.

Mergers

Last Fall, United Airlines bought out the Pacific divison of Pan Am, thereby putting itself in a very strong position on the Pacific routes which, unlike the Atlantic and South American routes, have had a good earnings record in US international travel. That was the first move in a large scale shake-out of US airlines, which is unlikely to have yet run its course. TWA was bought out by Carl I Cahn who then followed by buying Ozark, thus concentrating their already enormous hubs at St. Louis. Northwest merged with Republic, resulting in a concentration at Minneapolis which will make them impregnable at that point, controlling 51 of that airport's 63 gates. Texas Air, already owner of New York Air, acquired Continental as a "Chapter 11" bankrupt and then Eastern, which was facing a similar fate. That particular merger has made Texas Air the largest US carrier, with a net consolidation of power at La Guardia and enabling Texas to rationalise their operations and pricing for example in the Boston, New

York, Washington triangle and in the whole "eastern corridor". People Express, the strongest of the post-deregulation new airlines, is also making clearly conceived acquisitions — Frontier, Britt and Provincetown: Boston. Other examples include Piedmont's acquisition of Empire and Pan-Am's of Ransome.

When a critic such as Bormann of Eastern Airline argued with a Senate Sub-Committee in 1977 that deregulation might result in the "disappearance of all but a few large carriers with a tremendous amount of economic power" (quoted in New York Times 21 January 1986), one of the standard responses was that new small regional carriers would emerge in compensation. That certainly was the pattern in the years up to 1984 but there is an increasing trend of affiliation by the smaller carriers to the majors. Individual small carriers have protested that they had no option.

Current Perspectives

Ralph Nader, the well known consumer advocate, was recently quoted as being deeply concerned by the trend: "In a very short time the industry could be controlled by a handful of very large companies" [Airline World (1986)]. Fortune describes Alfred Kahn, seen by many as one of the main architects of deregulation, as "talking these days like a man who thinks he may have helped create Frankenstein's monster" and as saying: "The number of carriers in a market is the main factor in keeping prices down. If carriers in a city are reduced from two to one, I get worried" [Fortune (1986)].

Conclusions

This article has tried to summarise developments following the deregulation of US airlines. Consumer benefits have been many, that is certain, and may have outnumbered the penalties. But the penalties have been severe in smaller markets, to such an extent that Senator Robert C Byrd, one of the promoters of Deregulation, said in March 1986: "I voted for deregulation and I've been sorry ever since". West Virginia (the Senator's State) has lost much of its air service since airline deregulation, and "fares doubled, tripled and now have quadrupled". Competion has been good for many others in the form of low transcontinental fares, but "the taxpayers are paying the bill" with high fares on some routes to compensate for low fares elsewhere. When and if legislation to reregulate comes up, "I can't wait to cast the first vote" [Aviation Week & Space Technology, (1986)].

It would be foolish for any community outside the US to ignore such remarks and assume that for them penalties would not arise from the liberalisation of airline rules.

On the supply side there undoubtedly has been turbulence and, in the long term, it must be recognised that the consumer must have a stable industry if service needs are to be met. The US experiment in taking the controls off an entire industry gives the European observer a unique opportunity to study the outcome in virtual "laboratory conditions".

That observer will see an industry being rent asunder, regrouping and seemingly adjusting itself into a position where, while still deregulated, it will have itself regained some control on consumer market forces. The observer must also recognise that an important feature of the US airline industry has been lost: the assurance of a complete and balanced network of transportation in which communities could count on consistent, dependable service and non-preferential pricing.

The European situation is different in so many ways from the US scene that simple conclusions cannot be drawn from the US experience. These differences include the existence of sovereign national states, an already existing concentration of hub-and-spoke type operations, much greater discount fares than in the pre-1978 US industry, and 50% of air transport using the charter mode (which has no parallel within the US).

REFERENCES

Airline Deregulation Act, US Congress, 92 Stat. 1705, 1978.

Airline World, London, 24 April 1986.

Aviation Week & Space Technology, 24 March 1986.

Bailey, E. 1985 *Deregulating the Airlines,* MIT Press, Massachussetts.

Brenner M.A., Leet J.O., Schott E: *Airline Deregulation,* Eno Foundation for Transportation, Westport, Connecticut, 1985.

Civil Aeronautics Act, US Congress, 52 Stat. 973 (title changed subsequently to the Federal Aviation Act), 1938.

Federal Aviation Act, US Congress, 72 Stat. 731, 1958.

FORTUNE Magazine, 31 March 1986.

Morrison S. and Winston C: *A Study of the Effects of Airline Deregulation",* Brookings Institute, April 1986.

Report of the Sub-Committee on Administrative Practice and Procedures, US Senate Judiciary Committee, 41 Journal of Air Law and Commerce 607, 1975.

Report of the US General Accounting Office, GAO/RCED-86-26, November 1985.

TIME Magazine, 21 February, 1983.