
It is said that generals are always prepared to fight the last war, and sometimes the one before that. In the same sense, academia seems always ready to give us solutions to yesterday’s problems. This is the main difficulty this reviewer had with Dr. Taneja’s excellent textbook. As is stated clearly in the preface, “the book is an attempt to provide the reader with an introduction to the commercial airline industry with emphasis upon managerial practices and regulatory policies.”

If by “the reader,” Dr. Taneja means a graduate student working towards a degree in economics or government, the book is undoubtedly useful. It begins by providing a brief history of the commercial aviation industry both before and after the 1938 introduction of detailed economic regulation of the airlines. In subsequent chapters, the reader is carried through the chain of managerial decisions and regulatory rulings that have shaped the industry into the multi-billion dollar giant it is today.

Dr. Taneja’s background includes service as an economic analyst with Trans World Airlines. His book reflects his continuing interest in marketing and financing, but almost entirely on a theoretical basis. Little, if any, of the application of theory to practice is revealed to us. Any direct observations Dr. Taneja might have acquired in his airline work are seemingly reserved to a later volume. The book also reflects his continuing interest in the application of econometric methods for forecasting the demand for air transportation, with emphasis again on the theoretical.

While the book suffers from the fact that it was more or less assembled from lecture notes both of the author and of his colleagues on the faculty of the Massachusetts Institute of Technology, it does provide a solid background of information on a wide variety of airline issues of current interest. The net effect, however, seemed to this reviewer to be a large accumulation of data on a variety of subjects of interest to Dr. Taneja and the MIT teaching staff,
while neglecting perhaps an equally wide variety of issues either entirely or with less than adequate treatment.

The supersonic transport, for example, is given only three pages at the end of the book. Similarly, the rise of consumerism in commercial aviation, which has had a dramatic impact on airline marketing, as well as upon government regulation (the Civil Aeronautics Board has a large and active “Consumer Advocate” office), is hardly discussed at all in Dr. Taneja’s book. This reviewer also had trouble with Dr. Taneja’s assumption that all his readers had completed graduate studies in economics. For example, the statement that “the economic behavior of these (U.S. domestic trunk-line) carriers is quite different from standard microeconomic theory” is interesting only if the reader is fully acquainted with Dr. Taneja’s version of “standard microeconomic theory.” At other points, Dr. Taneja makes even greater demands on his readers to supply an MIT-oriented background of understanding. To be fair, Dr. Taneja does not present his book as something for the masses, but rather as a textbook that will be useful in the courses that he and others are teaching. Judged on that basis, there is no denying the worth of his efforts.

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The tendency of transport industries to acquire excessive capacity reached an extreme in the U.S. airline industry in the early 1970's. The wide-bodied aircraft—first the Boeing 747, then the Lockheed L-1011 and the Douglas DC-10—were being delivered to the airlines based on orders placed in the late 1960's which, in turn, were premised on an assumption of a continuation of the traffic growth of the 1960's.

Delivery of these aircraft (and smaller types ordered on the same premise) caused a substantial and rather sudden rise in total capacity which, unfortunately, happened to coincide with a severe leveling of traffic growth. Having this great capacity on hand, and pressured by a desire to maintain market shares, airline management tended to utilize the capacity even to the point where load factors dropped well below fifty percent system-wide, and in some markets dropped below forty percent.

In this book, Dr. Vambery, the Director of International and Transportation Studies at Rutgers University, analyzes this critical problem of overinvestment in aircraft in the early 1970's and the steps taken to cope with it such as the capacity agreements which some airlines, with Civil Aeronautics Board approval, entered into, largely in the transcontinental and Puerto Rican markets. His concern, though, goes far beyond the temporary crisis and extends into the reasons why overcapacity appears to be a chronic problem in common carrier transportation services. He does an impressive job of showing how complex and multi-faceted the problem really is.

Dr. Vambery defines "excess capacity" broadly to include three situations: (1) where actual demand is below the forecast on which management based its earlier aircraft orders, (2) where load factors are at the level that management wishes but are based on management biases in favor of growth and market share protection and are thus not at "economically efficient levels," (3) where wide-bodied aircraft are used with low seating configurations. He notes that load factors alone may not correctly measure excessive capital investment, because an airline may improve its load factors by measures such as reducing schedules while retaining the idled aircraft. He attempts, therefore, to measure "excess capital investment in aircraft capacity" by measuring the gap between the traffic growth rate forecasted when the aircraft were ordered (with a two-year to five-year lead time) and the actual growth rate that occurred. By this method, his data show that the aircraft capital investment of the airlines by the end of 1974 was about forty percent excessive, and this assumes that the airlines were considering a load factor in the fifty to fifty-two percent range as "normal."

A full chapter is devoted to the capacity-limitation agreements which began in 1971, including the additional restrictions con-
nected with the fuel crisis of 1973-74. The conclusion is reached that the agreements were successful in increasing load factors and reducing operating costs without undue harm to the public, but that their use other than for temporary emergency periods, such as the airlines faced in the early '70's, is not justifiable. It is argued that airlines will tend to use capacity freed through agreements on one route to add to their competition on non-agreement routes, and that while this may be prohibited by the CAB, it is extremely difficult to prove in a manner permitting enforcement action in the judicial context within which the CAB must operate.

Indeed, even where “freed” capacity is not shifted to other routes, the easing of cost problems on the “agreement” routes allows the carriers to increase their competitive efforts, such as advertising, on other routes. The upshot is that the use of agreements would tend to spread to all carriers and all routes. This would lead to managerial complacency, a reduction in incentives to innovate with respect to schedules, fares, and services, and a situation where inefficient policies and managerial mistakes would be only lightly penalized.

At this writing, the capacity agreements have fallen out of favor with the CAB, Congress, and the Administration, and there are proposals in some “deregulation” legislation which would prohibit their use altogether. The message of this book is that they are useful tools in temporary severe situations, but that they should not continue beyond a year (or at most two years) during which time the airlines should be on notice that they must adjust their fleets or their operating practices.

The book makes a variety of recommendations for the control of excess capacity in the future. Marketing emphasis should be shifted to expand charter service (especially the one-stop inclusive tour type) and devices that relate demand to supply closely, such as seat block sales and the APEX fare where a passenger’s ticket is tied to a specific flight and must be purchased by a specific time before flight departure. The CAB rate-making load factor standard of fifty-five percent, derived from the Domestic Passenger Fare Investigation, should be increased to a sixty to sixty-five percent level. The use of wide-bodied aircraft should be limited to high density routes and some of them should be changed to a higher seating
configuration so as to offer a special low-fare service. Some of these aircraft, however, should also be kept in the current more spacious configuration for those passengers preferring comfort to price. Moreover, the airlines should keep smaller aircraft in their fleets for use everywhere except where traffic density allows the wide bodies to realize their low seat-mile costs. The smaller aircraft have a cost advantage on thinner routes and also permit more frequent flights.

It is also recommended that when a heavy oversupply of aircraft exists in the airlines' fleets, "they should work vigorously to divest themselves of a portion of their fleets." Acknowledging that losses from sales of aircraft under market conditions of oversupply may be considerable, the author suggests that such losses may prove in the long run less than the accumulated losses from operating with the excess fleet.

On the proposed economic "deregulation" of the airlines, Dr. Vambery seems dubious that substantial deregulation will help to control the excess capacity problem. While the book does not concern itself to any great extent with the several deregulation proposals, the author appears to fear that opening up the airways to unlimited entry would exacerbate the capacity problem, while a complete deregulation of rates might result in undesirably high regular fares and some discount fares of unjustifiably low yield. He also states, however, that a degree of relaxation on the number of entrants to a market might increase competitive forces and result in higher load factors.

Dr. Vambery's book covers a wealth of material and involves a degree of analysis to which a review cannot really do justice. Yet there are a few points to criticize. The author seems to gloss over the problems an airline faces when selling part of its expensive fleet at the very time when other airlines are doing the same thing. Nor is there any substantial consideration of alternative means of relieving the excess capacity problem such as leasing aircraft or seeking ways to shorten the aircraft manufacturers' lead times. Moreover, the focus is largely on domestic services, although the capacity problem surely extends very much into the international sphere.

While the early chapters and the final chapter are written with commendable precision, certain portions of the book leave the
reader confused as to when the author is delineating the opinions and reasoning of the CAB derived from Board orders and when he is delivering his own opinions.

Nevertheless, these are minor criticisms. The book as a whole is a valuable contribution, written in a readable style. The author makes an earnest and knowledgeable effort to go to the heart of the economic problems of the airlines.

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