

# NOTES AND COMMENTS

## IS REGULATION NECESSARY? CALIFORNIA AIR TRANSPORTATION AND NATIONAL REGULATORY POLICY

AIR transportation in the United States, as elsewhere in the world, is a regulated and protected industry.<sup>1</sup> The present system of economic regulation was established in the Civil Aeronautics Act of 1938<sup>2</sup> and has survived virtually unchanged despite vast changes in the character of the industry<sup>3</sup> and a review and reorganization of government control which resulted in the present statute, the Federal Aviation Act of 1958.<sup>4</sup> Government restriction of entry into the industry and regulation of fares has fostered unnecessarily high fares, encouraged uneconomic practices, and limited the variety of service available to the public. The performance of the largest air transportation market in the world provides convincing evidence that fares are much lower and service more responsive to public needs where restrictions on entry are absent

1. In many countries control is exercised directly by establishing a government-owned and operated carrier which monopolizes or overwhelmingly dominates the transportation system. In some countries, the monopoly carrier is privately owned, but government-regulated. In a few countries, which include five of the world's largest air transportation systems (Australia, Brazil, Canada, Japan, and the United States), the government licenses companies to operate scheduled services in competition with the state airlines or, as in the United States, in competition with one another.

2. 52 Stat. 977 (1938).

3. In 1938, the industry was still in its childhood. The first aircraft that offered even the promise of an unsubsidized profit (the Douglas DC-3) was still being introduced into service. Flying was a novelty reserved for the adventurous or for those whose business required maximum speed. In 1938, all the domestic trunklines (airlines performing mainline scheduled services entirely within the continental United States, excluding Alaska) carried 1,536,000 passengers. STAFF OF SUBCOMM. No. 5, HOUSE COMM. ON THE JUDICIARY, 85TH CONG., 1ST SESS., AIRLINES (Comm. Print 1957), [hereinafter cited as AIRLINES] Table 2, 18. In 1964, the domestic trunklines carried 72,988,000 passengers. CAB Air Carrier Traffic Statistics, Dec. 1964 at 1 (line 19). The number of passenger-miles (one passenger carried one mile, the standard measure of output in air transportation) flown increased from 479,844,000 in 1938 to 44,141,261,000 in 1964. Thus, in terms of output, the industry is approximately one hundred times the size of its 1938 counterpart. The smallest domestic trunk line (Northeast) produced more in 1964 than did the entire domestic industry in 1938. CAB Air Carrier Traffic Statistics, Dec. 1964, at 15 (line 11). Compare with AIRLINES, Table 2, 18.

Aircraft today are six times as large, more than three times as fast, and can fly more than five times as far as their 1938 counterparts. They also produce seat-miles at a cost less than a third of their earlier counterparts (although their initial cost is six to fifteen times as high) and aircraft still more economical to operate are on order or projected. Today, the cost per seat-mile of operating a modern jet aircraft over long distances is about one cent. For shorter distances, it is greater, although still less than two cents. Aviation Week and Space Technology, "Operating Costs of Turbine Aircraft in Airline Service," May 31, 1965 at 36-37.

4. 72 Stat. 731, 49 U.S.C. §§ 1301-1542 (1958).

and control over fares is rarely exercised. It is time for the CAB to reconsider national regulatory policy, benefiting from twenty-seven years of accumulated experience and the remarkable example of the Los Angeles-San Francisco market.

### I. THE HISTORY OF AIRLINE REGULATION

The present regulatory scheme had its beginnings in earlier government efforts, which were inspired by the desire of Congress and the Post Office to develop an airmail system.<sup>5</sup> Government and commercial mistakes and the Great Depression combined to render these initial attempts inadequate.<sup>6</sup>

In the Kelly Air Mail Act of 1925,<sup>7</sup> Congress, attempting to create an arrangement analogous to that by which private railroad companies carried the bulk of overland mail, transferred primary responsibility for the carriage of airmail from the Army to private firms organized especially for this purpose. But air carriers could not yet survive on the passengers and freight they could attract and government mail contracts became the life-blood of air commerce in the United States. The 1925 Act provided for competitive bidding for short-term contracts, with the amount to be paid the airlines limited to 80 per cent of the airmail postage revenues. Because available aircraft were not economical enough to operate on the revenues available at airmail rates, the original act failed to attract bids. Therefore the Act was amended to allow four-year contracts at a level of payments considerably above the earlier Act, with payments no longer linked to airmail revenues. Between 1925 and 1934, the government provided money on ever more liberal terms while exercising ever greater control over routes and business practices. Since operating a route without an airmail contract was nearly impossible, the Post Office could control overall pattern of service and route structures by awarding or withholding contracts.

This system was informal and haphazard,<sup>8</sup> and by 1930, the route system was so chaotic that the Postmaster General called a later-infamous conference for the purpose of creating at least two transcontinental routes to compete with United Aircraft and Transport Co. (the predecessor of United Airlines), the only coast-to-coast carrier. The attending carriers were instructed to arrange

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5. World War I had given the world an inkling of the possibilities afforded by the airplane. In this country, the Post Office particularly was interested in air transport as a means of moving the mail more quickly. Experimental services were started by the Army and suggested that a permanent system was feasible.

6. For a more complete history of the early development of the industry and regulatory scheme than that presented here, see RHYNE, *THE CIVIL AERONAUTICS ACT ANNOTATED* (1939); KEYES, *FEDERAL CONTROL OF ENTRY INTO AIR TRANSPORTATION* (1951); H. L. SMITH, *AIRWAYS: THE HISTORY OF COMMERCIAL AVIATION IN THE UNITED STATES* (1942). For a colorful, but less-than-scholarly account, see KELLY, *THE SKY'S THE LIMIT* (1963). See also *AIRLINES* ch. 1.

7. 43 Stat. 805 (1925).

8. No attempt was made to create a coherent transportation system. Awards were made by competitive bids. Since entry costs were low and efficiency was almost completely unrelated to size in the primitive technology of the period, a patchwork of small, disjointed lines was created.

routes among themselves for submission to the Post Office Department. In the ensuing route rearrangement, the smaller operators were subjected to tremendous pressure to merge into the larger systems, both by the larger carriers themselves and by the Postmaster General. In the end, two new systems, TWA and American,<sup>9</sup> were created by the merger of small lines. They were awarded contracts by a government-approved system of rigged bidding. Prospective bidders other than those ultimately to get the contract were bought out at the public's expense, since the cost of buying out competitors was reflected in the contract price. This cartelized and expensive system was exposed by then Senator Hugo Black in a sensational investigation conducted in 1934. The investigation disclosed that the three cartels held contracts for ninety per cent of all air mail payments. In addition, the parent companies of these airlines were vertically integrated, and included manufacturers such as Boeing, North American, Pratt & Whitney, and Curtis-Wright. As a result of this investigation, all contracts were cancelled, and the Army made a literally disastrous attempt to fly the mail.<sup>10</sup> The airlines limped along on passenger and express revenues which were by that time sufficient to avert immediate bankruptcy.

The comprehensive Airmail Act of 1934<sup>11</sup> attempted to remedy the defects of the earlier arrangements. It attempted to ensure competition, to make vertical integration arrangements illegal, and to bring rates and contracts under the jurisdiction of the Interstate Commerce Commission, although the route awards were still to be made by the Postmaster General. The Act called for the establishment of four transcontinental routes and routes on each coast. Subsidy was to be granted through a "mail pay" formula which was related to the capacity and type of equipment offered, rather than the amount of mail actually carried. Since the only organizations competent to handle the important routes were the discredited airlines, a face-saving formula was devised which enabled them to bid for the contracts.<sup>12</sup> These firms and the predecessor of Eastern Airlines received the major awards, and the "big four" pattern of trunk carrier service<sup>13</sup> was established.

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9. Transcontinental and Western Air and American Airways, Inc., the predecessors of Trans World Airlines, Inc. and American Airlines, Inc. respectively.

10. The contracts were cancelled as of February 19, 1934 and the cancellation remained in effect until May 16, 1934. During that period, the Army, flying unsuitable equipment under poor weather conditions with little backlog of experience in foul weather and night operations, experienced a series of accidents. Twelve pilots were killed, and at least twice that many were injured. Public outcry at this pointless slaughter led to the enactment of the 1934 Act and the reinstatement of the contracts. H. L. Smith, *op. cit. supra* note 6 at 249-58.

11. 48 Stat. 933 (1934).

12. AIRLINES 13.

13. The "big four" are American Airlines, Eastern Airlines, Trans World Airlines and United Air Lines, the four largest domestic trunk (main-line) carriers. Their share of total traffic has been reduced somewhat since 1938 as a result of continuing efforts by the Board to strengthen smaller carriers. See AIRLINES 19-21.

This history greatly influenced the regulatory pattern created in the 1938 Act, and has had a psychological impact upon both the carriers and their regulators. The new air transportation system was dominated<sup>14</sup> by four carriers identified in the public mind with the "spoils meetings" of 1930, and hence with collusion and division of markets. Fear of "big four" domination and ultimate air transport monopoly was one of the most important sources of public pressure for the passage of the 1938 Act, and has continued to concern the Board and the public.<sup>15</sup>

During the period when the attention of the public was focused upon the monopoly problems of the industry, the industry itself was becoming increasingly concerned about excessive competition. None of the legislation prior to 1938 contained any restrictions on entry. It might have been expected that in this period when mail carriage was the crucial source of revenue for air carriers, the exclusive nature of mail contracts would have acted as a barrier to entry. But entry was relatively inexpensive and, even during the depression, some individuals were willing to take a chance in aviation without a mail contract.<sup>16</sup> Carriers with airmail contracts were not permitted to compete in any market for which a mail contract had been awarded to another carrier. Since mail contracts covered virtually all potentially profitable routes, the result was a government-sponsored division of markets, in which the contract carriers gave up the right to compete in other markets for monopoly rights in their own. Non-contract carriers were subject to no such restrictions and established themselves on the most profitable routes. This competition cut into the non-mail revenues of the contract carriers at the same time as the Depression was affecting them adversely. The result was to threaten capital investments made by the established carriers during the boom years of the late 1920's and during the early 1930's while they were under the protection of a cartelized industrial structure. In addition, developing aircraft technology promised future profits, and passenger business was steadily, if slowly, growing. Thus, the industry was likely to attract still more new capital in the future. In the face of this competitive threat to past investment and future security, the airlines formed a trade association (the Air Transport Association) and pressed for protective legislation.

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14. In 1938, the year the present regulatory scheme was enacted, the big four shared 81.9% of the industry's total output. AIRLINES, Table 3, 20.

15. Including a massive congressional investigation; see STAFF OF SUECOMM. No. 5, HOUSE COMMITTEE ON THE JUDICIARY, 84TH CONG., 2D SESS., MONOPOLY PROBLEMS IN REGULATED INDUSTRIES — AIRLINES four volumes (Comm. Print 1956). Both the Board and the industry regard air transport as a public utility industry with monopolistic and destructive tendencies. There is near-universal agreement on the advantages of large size, "advantages" apparently quite unrelated to the minimum efficient operational size.

16. Aircraft cost little, ground facilities were minimal even on the established lines, the government-provided airways were available for all to use without charge, and the glamour of air transportation attracted speculative capital.

The new association put before Congress dire predictions of commercial chaos and impaired safety.<sup>17</sup> It demanded protective legislation.<sup>18</sup> The resulting Civil Aeronautics Act of 1938<sup>19</sup> provided the industry with protection so efficacious that not one carrier has been certificated to perform domestic trunk service which was not operating on May 14, 1938 and thus qualified for a certificate under the automatic-certification (grandfather) clause.<sup>20</sup>

The Federal Aviation Act of 1958, successor to the 1938 Act, gives to the Federal Aviation Agency jurisdiction over the "technical" or "operational" aspects of air transportation (safety regulation, airport development, and control of the airspace).<sup>21</sup> These activities are largely outside the scope of this Comment. The "economic" aspects of air transportation (*e.g.*, rates, routes, and market structure) are within the jurisdiction of the Civil Aeronautics Board, which was established by the 1938 Act<sup>22</sup> and which continued virtually

17. In 1937, the president of the Air Transport Association argued the need for regulation as follows:

Of the 120,000,000 of private investment which has been made in American Air Transport, more than half is gone. This condition of financial starvation not only makes it impossible for these lines to take full advantage of possible technological improvements, but could lead to traffic competition of such intensity that the accident ratio might accelerate instead of decline. Failure to correct the existing situation and to do so promptly, means more than loss to the capital remaining invested in the Air Transport industry, to the labor employed in it, and to this country's position in civil aviation. It may very well entail a large cost in human life.

KELLY, *THE SKY'S THE LIMIT* 101 (1963).

18. The president of the Association testified before a House committee considering regulation:

But the essential point is that it is possible to start a service on but a minor amount of capital, and this possibility has become an actuality from time to time in the past. With the increase in traffic, the temptation thus to begin new services is becoming stronger.

It is needless to point out that this condition means much that is good, but also carries with it the threat of much that is bad. It promises haphazard growth, if we are not careful. It threatens unbridled and disastrous competition if we do not take heed. It leaves the small lines in a very precarious position. It requires some orderly procedure, preferably, I personally believe, the procedure of certificates of convenience and necessity already embodied in our Federal legislation as to railroads and interstate motor carriers, which will provide for minimum standards of service to be complied with before business is begun, and will give some protection to existing lines so that momentary, unsound overcompetition will not threaten.

*Hearings on H.R. 5234*, 74th Cong., 1st Sess. 66 (1937).

19. 52 Stat. 977 (1938).

20. Section 401(e)(1), 52 Stat. 988. Remarkable as this fact may seem on its face, it is almost unbelievable when considered in the light of the hundred-fold growth of the industry and the route changes made necessary by changing technology and market development.

21. 72 Stat. 731, 49 U.S.C. §§ 1341, 1421 (1958).

22. It was described in § 201 of the original Acts as the "Authority" (52 Stat. at 980) but it was redesignated by the Reorganization Plan IV of 1940 as the "Board" in order to delineate clearly its function of economic regulation and distinguish it from that part of

unchanged, but as a separate agency, under the 1958 Act.<sup>23</sup> The Board is empowered under Subchapter IV of the 1958 Act to exercise supervision and control over entry into the industry,<sup>24</sup> cities to be served,<sup>25</sup> rates,<sup>26</sup> direct subsidies,<sup>27</sup> and terms of mail carriage.<sup>28</sup> The Board also has the power to approve or prevent mergers, acquisitions, and transfers of control of air carriers,<sup>29</sup> and actions so approved are immune from the operation of the antitrust laws.<sup>30</sup>

Congress made clear the government's objectives in regulating air commerce:

In the exercise and performance of its powers and duties under this chapter, the Board shall consider the following, among other things, as being in the public interest, and in accordance with the public convenience and necessity.

(a) The encouragement and development of an air-transportation system properly adapted to the present and future needs of the foreign and domestic commerce of the United States, of the Postal Service, and of the national defense;

(b) The regulation of air transportation in such a manner as to recognize and preserve the inherent advantages of, assure the highest degree of safety in, and foster sound economic conditions in, such transportation, and to improve the relations between and coordinate transportation by, air carriers;

(c) The promotion of adequate, economical and efficient service by air carriers at reasonable charges, without unjust discriminations, undue preferences or advantages, or unfair or destructive competitive practices;

(d) Competition to the extent necessary to assure the sound development of an air-transportation system properly adapted to the needs of the foreign and domestic commerce of the United States, of the Postal Service, and the national defense;

(e) The promotion of safety in air commerce;

(f) The promotion, encouragement and development of civil aeronautics.<sup>31</sup>

The Board is empowered to regulate entry by issuing certificates of public convenience and necessity.<sup>32</sup> No carrier can engage in air transportation without such a certificate. Some carriers were certificated under the "grandfather clause" of the 1938 Act. For other carriers, the Act provides that:

The Board shall issue a certificate authorizing the whole or any part of the transportation ordered by the application, if it finds that the applicant

the parent agency (Civil Aeronautics Administration) concerned with operational regulation.

23. 72 Stat. 731, 49 U.S.C. §§ 1301-1542 (1958).

24. 72 Stat. 754, 49 U.S.C. 1371(a)(3) (1958). Although it is industry practice to refer to sections of the Act dealing with economic regulation by their statute section numbers, *e.g.*, § 401(a)-(d), the writer will use the code section numbers, and further cites to the 1958 Act will be made simply by reference to the appropriate section of 49 U.S.C.

25. 49 U.S.C. § 1371(e) (1958).

26. 49 U.S.C. §§ 1373, 1374 (1958).

27. 49 U.S.C. § 1376(b)(3) (1958).

28. 49 U.S.C. §§ 1375, 1376 (1958).

29. 49 U.S.C. §§ 1378, 1379 (1958).

30. 49 U.S.C. § 1384 (1958).

31. 49 U.S.C. § 1302 (1958).

32. 49 U.S.C. § 1371(a) (1958).

is fit, willing and able to perform the transportation properly, and to conform to the provisions of this chapter and the rules, regulations, and requirements of the Board hereunder, and that such transportation is required by the public convenience and necessity; otherwise such application shall be denied.<sup>33</sup>

A permanent route certificate is a grant of monopoly or oligopoly power to exploit the traffic over a named group of cities arranged sequentially.<sup>34</sup> Although the Board may limit the operating rights granted by a certificate,<sup>35</sup> with or without limitations, a route award is potentially a valuable property. The value of a certificate is enhanced because the CAB attempts to protect the revenue of certificate holders from the effects of competition,<sup>36</sup> and the certificates are transferable.<sup>37</sup> Carriers pay a price, though, since government supervision is potentially so pervasive as to interfere with virtually all management prerogatives. However, even observers inclined to defend the interests of the airlines have acknowledged the munificence of the 1938 Act.

The resulting Civil Aeronautics Act of 1938 gave the airlines almost all that they desired. The routes of the then existing . . . airlines were protected, and the threat of outside competition was practically eliminated. Furthermore a generous subsidy was provided, in effect a blank check. The carriage of Air Mail need no longer be on a contract basis, subject to competitive bids. Instead, government mail pay was to be awarded to a carrier on the basis of "need." Unless a carrier could be shown to be wilfully fraudulent or inefficient in his management, he no longer had to fear losses. The government stood ready not only to make up any deficit, but also to insure a return on his investment. All in all, the . . . Act seemed to be a bonanza for the airlines, and the major figures in the industry greeted its passage enthusiastically.<sup>38</sup>

33. 49 U.S.C. § 1371(d) (1) (1958).

34. The following is a typical route certificate:

Northeast Airlines, Inc. is hereby authorized, subject to the provisions hereinafter set forth, the provisions of title IV of the Federal Aviation Act of 1958, and the orders, rules, and regulations issued thereunder, to engage in air transportation with respect to persons, property, and mail, as follows:

. . . 5. Between the terminal point New York, N.Y.-Newark, N.J., the intermediate points Hartford, Conn., Springfield, Mass., Keene, N.H., White River Junction, Montpelier-Barre and Newport, Vt., and the terminal point Burlington, Vermont.

The service herein authorized is subject to the following terms, conditions, and limitations:

(4) The holder shall serve Hartford, Conn., and Springfield, Mass., only on flights originating or terminating at Keene, N.H., or a point north thereof.

C.A.B. CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY (as amended) for Route 27, Northeast Airlines, Inc. (Issued pursuant to C.A.B. Order No. E-19910.)

35. It usually does so to limit schedule frequency to avoid "excess competition." See, *e.g.*, the limitation imposed by provision (4) of the Northeast Airlines certificate, *supra* note 34.

36. See, *e.g.*, 22 C.A.B. 991 (1955).

37. With the approval of the Board. 49 U.S.C. § 1371(h) (1958).

38. KELLY, *op cit.* *supra* note 6, at 102.

In 1938, regulation seemed a small price to pay, especially since the industry appeared likely to face an annual deficit for many years to come. By 1952, however, the major airlines no longer required direct subsidy,<sup>39</sup> and since then they have been less reluctant to complain about government interference. But the other protection afforded by the 1938 legislation, the freedom from new competition, has been jealously guarded.<sup>40</sup> Indeed, the airlines have demonstrated an almost pathological fear of open competition, especially price competition.

This fear, dignified by twenty-five years of regulatory enforcement, has been transmogrified into a sacred truth — namely, that airlines, if allowed to compete without restrictions would engage in a frenzy of below-cost selling to the ultimate ruin of all. Such “cut-throat” destructive competition involves carriers in an overcapitalized market (*i.e.*, too many sellers) cutting fares to the point where the increase in market demand created by lower fares will not compensate for reduced unit revenues (*i.e.*, “dilution of revenues”).

## II. THE ECONOMIC THEORY OF AIRLINE REGULATION

The CAB, in regulating the industry, has shared the carriers' fear that price competition would be destructive. In addition, the Board concurs in the general belief that, unregulated, the industry would become monopolistic.<sup>41</sup> The monopoly spectre has haunted the Board in two inconsistent and equally amorphous forms.

First, it is feared that without regulation the industry would be “excessively competitive.” The resulting “cut-throat” competition, in addition to causing economic waste, would lead ultimately to monopoly. It is feared that such destructive competition, in which no carrier could operate profitably, would drive all but the strongest out of business. The survivor could then exercise market power and provide inferior service at monopoly fares. This fear probably had

39. See, *e.g.*, 14 C.A.B. 558, 569 (1951); 14 C.A.B. 1074, 1078 (1951); 15 C.A.B. 238, 239 (1952).

40. Examples of this are the trunk-lines' twelve-year fight against the “irregular carriers” (now known as “supplemental air carriers”), who attempted to develop low-fare markets ignored by the certificated carriers, and their almost universal resistance to untraditional innovation (*e.g.*, anything that resembles price competition) even from within their own ranks. See KELLY, *op. cit. supra* note 6, ch. 25.

41. See note 15 *supra*. David Bluestone, a noted air transport economist, in his article *The Problem of Competition Among Domestic Trunk Carriers, Part I*, 20 J. AIR L. & COM. 379, provides an outstanding example of this type of reasoning (at, *inter alia*, 380-81, 384-91, 395). Mr. Bluestone is now head of the Planning Office of the CAB but he was not employed by the Board at the time the article was published, and hence the article cannot necessarily be taken to represent the Board's official position.

For other studies of air transport market behavior, see GILL & BATES, AIRLINE COMPETITION: A STUDY OF THE EFFECTS OF COMPETITION ON THE QUALITY AND PRICE OF AIRLINE SERVICE AND THE SELF-SUFFICIENCY OF THE UNITED STATES DOMESTIC AIRLINES (1949); CHERINGTON, AIRLINE PRICE POLICY: A STUDY OF DOMESTIC AIRLINE PASSENGER FARES (1958); and S. RICHMOND, REGULATION AND COMPETITION IN AIR TRANSPORTATION (1961).



its origins in the carriers' Depression experience, where competition from unregulated lines combined with generally poor business conditions to affect adversely their investment.

Second, the CAB fears that without regulation the industry would not be competitive enough. The Board believes that monopoly would result through internal growth, merger, or collusion. This fear may have its origins in memories of the "spoils conference" and the collusion revealed by the 1934 investigation, and it is probably reinforced by recent attempted mergers.

Assuming that air transport firms behave rationally (that is, that they act to maximize gains and minimize losses), fears either of destructive competition or of monopoly must be justifiable by economic analysis to be credible. It may be that airlines are economically similar to public utilities. Or, it may be that the industry is characterized by barriers to new entry sufficiently high to allow monopolistic practices to survive unchecked by competitive forces. If neither of these is the case, it is difficult to see how the Board's economic fears are justified. Since the natural play of market forces in a public utility industry works to the public detriment, government regulation of public utilities in effect *removes* them from the competitive sector of the economy. In an industry characterized by the erection of high barriers to entry, market forces which would otherwise operate to the public benefit are stifled. The anti-trust laws seek to *preserve* the free operation of the market by preventing the erection of such barriers.

Public utilities such as telephone and power companies are described as "natural monopolies." In these industries the largest firm always has the lowest unit costs; therefore, only one firm can survive. Since the required capital investment is high and cannot be easily transferred or liquidated, new entry is costly and unlikely to occur. The established firm can use its natural cost advantages to drive out the new entrant, and since the new entrant's capital investment is immobile, it will suffer substantial losses. Such industries are regulated to prevent the output restrictions and monopoly prices which the free play of market forces would permit. There is general agreement upon the economic necessity of regulating natural monopoly industries. But Caves has demonstrated that air transportation is not a natural monopoly industry. He finds that, once minimum efficient size has been attained, scale of operations plays an insignificant role in determining costs and very large size may even be slightly disadvantageous.<sup>42</sup>

Public utilities such as pipelines and railroads are regulated for a different reason. These industries are characterized by high unavoidable (fixed) costs and low avoidable (variable) costs. Consequently, the average cost of each unit of output carries a high capital burden and is far greater than the marginal cost of production. The invested capital is immobile and cannot readily be liquidated or moved to a more profitable location. To recover and profit

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42. CAVES, AIR TRANSPORT AND ITS REGULATORS 56-60 (1962), esp. Table 18, at 58 and Fig. 1, at 59.

from this capital investment, such a firm must sell at average cost or above. But, faced with competition, a utility of this kind will price below average cost. The heavy burden of unavoidable costs (a product of inability to liquidate, curtail output, or move) creates pressure to reduce prices in order to use existing capacity. Any price above marginal cost will contribute *something* toward meeting fixed costs and the firm will resort to such pricing as a short-run measure. Since each reduction in price will produce a corresponding price reduction by his competitor, the market price will move inexorably toward marginal cost. At marginal cost, however, none of the firm's capital is recovered.

Regulation of such industries proceeds upon the premise that pricing practices of this kind injure the public. The theory is that industries pricing far below average cost will be unattractive to capital. This is said to be undesirable because "needed" services will not be provided, and technological improvement will be slowed or halted. It is further claimed that the excess capacity resulting from competitive duplication represents economic waste since immobility prevents reemployment of redundant capital. The theory holds that the strongest firm will acquire a monopoly position as the capital reserves of its competitors are depleted. Typically, such "utilities" are removed from the competitive sector by government licensing (to eliminate or restrict competition) and rate regulation (to prevent destructive or monopoly pricing).

This theory is widely, but not universally, accepted. Regardless of its economic validity, the theory provides no justification for regulating the air transport industry, for it is generally acknowledged that the air transport industry is characterized by high variable (and thus avoidable) costs, rather than high fixed costs.<sup>43</sup> Since aircraft can be operated over any route offering the possibility of a profit, and since there is a thriving used aircraft market,<sup>44</sup> capital not profitably employed can be easily reemployed or liquidated.<sup>45</sup>

If it is true that the air transport industry is characterized neither by continually declining costs over feasible ranges of output, nor by a high ratio of fixed to variable costs and immobility of capital, then regulating airlines as public utilities is unjustifiable and works to the detriment of the public.<sup>46</sup> For

43. *Id.* at 79-82. Even Bluestone, although attempting to prove that airlines are appropriately regulated as public utilities, recognizes this cost relationship. His attempt to avoid its implications, by noting that most costs of the type which are fixed in "other" public utility industries are variable in air transportation, is unsuccessful. It is precisely this relationship of costs to output that makes airline costs available, and thus frees industry from the capital pressures which are said to create destructive pricing. Bluestone, *The Problem of Competition Among Domestic Trunk Carriers, Part II*, 21 J. AIR L. & COM. 50, 57-68.

44. CAVES, *op. cit. supra* note 42, at 106.

45. *Id.* at 80.

46. The most important work advocating free entry into air transport markets is KEYES, *FEDERAL CONTROL OF ENTRY INTO AIR TRANSPORTATION* (1951). The basic theses of this work are reflected in a series of articles by Mrs. Keyes in 16 J. AIR L. & COM. 280 (1949), 18 J. AIR L. & COM. 46 (1951), and 22 J. AIR L. & COM. 192 (1955). Mrs. Keyes

in situations other than those described, the market operates to lower prices, increase output and tailor production to suit consumer preferences.

If airlines have high avoidable and low unavoidable costs, they will not compete at prices which fail to provide adequate return, since curtailing operations will significantly reduce costs. If airline capital is mobile, then it will not remain employed in markets where the marginal rate of return is insufficient to justify its commitment. There will be no economic waste. If the airline industry is not a natural monopoly industry, then size alone will not confer market power and a small but efficient line will be able to survive competition even with a giant.

The airlines, long accustomed to uniform rates high enough to support all but the most inefficient, have come to regard price competition as almost always "cut-throat." This view depends upon the implicit assumption that all airlines operate at approximately the same level of efficiency, and that such competition merely "dilutes" revenues to the disadvantage of all. But if airlines vary markedly in efficiency, technological or marketing efficiencies can confer cost advantages on the efficient carrier. Competitive pricing will then shift market shares in favor of the more efficient carrier and, in addition, expand the market without "diluting" revenues. Such price competition will not be destructive because the higher cost carrier will not be forced by high, unrecoverable fixed costs to maintain capacity. If this analysis is borne out in practice, unregulated airlines behave like competitive manufacturing and marketing firms<sup>47</sup> and should not be regulated as public utilities.

However, if the hoped-for competitive benefits to the public would not materialize due to market imperfections, little will be gained by removing airline regulation, unless the market imperfections are corrected. Freedom of entry is vital to the operation of a competitive market with few sellers because it provides the control that keeps output high and price low. On one hand, if the price rises and makes possible a higher-than-competitive return, more capital will flow into the market and new firms will enter, thus bringing prices down to the competitive level. Also, freedom of entry prevents any firm from using

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makes a strong case, but she does not seem to recognize the political power of the internal subsidy issue, and how essential it is for a free market advocate to deal with it. CAVES, *op. cit. supra* note 42 discusses the effects of entry in Parts I and IV of his book and concludes that these effects would be beneficial, but he limits his scope to already certificated carriers and fails to put the discussion into argument form and follow it through to its logical conclusion. Part IV of Caves' book deals with alternate modes of regulation and freer entry, but never seriously considers truly free entry into trunk markets, apparently because he is haunted by the ghost of the cutthroat competition argument that he himself has killed. *Id.* at 433.

47. In view of the investment/revenue ratio given by Bluestone, *supra* note 41, at 57 n. 74, this fact should not be surprising. Bluestone points out that airlines have a ratio of investment to gross revenues (0.6:1) which is between that of manufacturing (1:1) and trading firms (1:4-5), and very much unlike public utilities (5-6:1). Since airlines are integrated firms, carrying on both production and marketing activities this result seems logical. See also CAVES, *op. cit. supra* note 42, at 81.

destructive pricing as a means to gain a monopoly. If competitors realize that selling below cost can never be the prelude to establishing a monopoly (due to the ever-present possibility of new entrants selling at a competitive price), then they will regard "cut-throat" competition as suicidal. Prices will be lowered when true efficiencies give market advantages. Since it has been demonstrated that barriers to entry other than those artificially imposed by regulation are relatively insubstantial in the air transport industry,<sup>48</sup> from an economic standpoint, an unregulated market should operate to the benefit of the consuming public.

But regulation of air transportation is claimed to achieve political and social as well as economic objectives. It is claimed that regulation provides air transport to areas which would otherwise not be served and that regulation guarantees safety. The first may be an appropriate national policy. And no one would question the importance of the second. But neither justifies the present system of regulation.

According to one estimate, fully half of United States airline cities do not generate enough traffic to cover the additional cost of providing them with service.<sup>49</sup> Some of these cities are subsidized directly, through government payments made to the local service carriers, but service to many is supported privately through internal subsidy. The CAB requires all carriers to serve cities and route segments that do not cover costs and to pay for such service out of profits extracted from long-haul or high-density segments served at higher-than-competitive fares. For example, United serves cities such as Elko, Nevada in return for being permitted to operate its transcontinental routes. The Board encourages even local service carriers, all of whom are subsidized directly by the government, to reduce the amount of direct subsidy by serving profitable high-density markets and using the profits to pay for service to unproductive points.

Normally, in a market economy, services which cannot be sold at a profit are not sold at all. To provide a service which does not generate enough demand to cover costs is wasteful. Resources consumed in producing this service could have been used to provide other, more desired, services elsewhere in the economy. Of course, social benefits may outweigh economic costs. But proponents of subsidy frequently purport to justify subsidized service on economic grounds, arguing that national or regional economic benefits flow from providing such transportation at low cost.<sup>50</sup> Benefits are said to accrue to persons other than those purchasing the service, and hence market performance is claimed to be an inadequate measure of value. This argument cannot be tested in the abstract, but only through analysis of each claim for subsidy. Subsidy is economically justifiable so long as it does not exceed the total value of the

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48. *CAVES, op. cit. supra* note 42, at 92, 95.

49. *Id.* at 414.

50. LOCAL SERVICE MEMBERS OF THE ASSOCIATION OF LOCAL SERVICE TRANSPORT AIRLINES (ALTA), AN EVALUATION OF THE CAB REPORT TO THE PRESIDENT ON AIRLINE SUBSIDY REDUCTION 13-15 (1963) (hereinafter cited as ALTA REPORT).

economic benefits conferred by the service. When economic benefits are insufficient to offset costs, subsidy may be provided for purely social or political reasons or withheld, leaving the route to the free market. Withholding subsidy does not mean that small cities are denied air transportation. Smaller carriers (air taxis), private aircrafts, and charters are available at higher rates to the user but lower cost to the economy as a whole.

Non-economic justifications of subsidy are, *ex hypothesis*, beyond economic argument. But a subsidy provided on non-economic grounds ought to be designed to do as little economic harm as possible. By this standard public subsidy from general revenues is preferable to private transfer payments. It makes little economic sense to charge one group of consumers a higher-than-competitive price in order to provide similar but economically unrelated services to another group of consumers. Artificially high prices for main-line transportation decrease demand for such services, injuring those who could have profitably used the service at its true cost. Subsidizing in this way creates an allocation of resources which does not maximize output of goods and services in the economy as a whole. An efficient allocation is achieved only by employing resources where they can be most profitably used.

Defenders of internal subsidy claim that private transfer payments save taxpayers' money.<sup>51</sup> Since the deficit incurred by the operation to be subsidized is independent of the source of the subsidy payments, it cannot be argued that the total cost of internal subsidy is less than the total cost of public subsidy on any given route. Moreover, it certainly cannot be argued that dollars for internal subsidy come into existence gratuitously. The citizen deprived of the opportunity to profitably use air transportation due to artificially high costs is "taxed" just as surely as if the Government collected the amount of lost profits from him. And those who travel on profitable routes, paying higher than competitive fares are "taxed" privately for the use of the service.

Finally, if output were increased by the more efficient allocations of resources which would result from the elimination of internal subsidy, the increase in total economic wealth would result in a decrease in the percentage of total revenues contributed to subsidy. Naturally, the total tax would be the same, but the taxpayer would find the bill easier to pay. Because public subsidy makes tax costs visible, benefits may be weighed against the cost of providing them. Internal subsidy makes possible disguised inefficiency.

The burden of subsidizing should fall where the benefits, economic or other, accrue. If the service is regarded as beneficial to the nation or economy as a whole, the nation should pay. If a certain geographical or economic sector is benefited, the burden of the subsidy ought to be placed there. Users of profitable routes do not benefit specially from the availability of service to unprofitable points. It is neither fair nor efficient to place the burden of subsidy on them.

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51. ALTA REPORT 38 (1963).

The final argument advanced is that economic regulation is necessary to insure safety.<sup>52</sup> This argument is based on the prediction that an unregulated market would be characterized by the proliferation of financially unstable carriers, and the assumption that financial stability contributes to safe operation. The first claim is simply untrue.<sup>53</sup> The second, while true, does not justify pervasive economic regulation of the CAB variety. Expenditures to preserve high maintenance standards and permit flight cancellations when safety requires do impose short-run financial burdens. But financial stability sufficient to ensure safe operation already is a prerequisite to entry. Additional economic regulation is superfluous. The FAA is empowered to withhold air carrier operating certificates<sup>54</sup> from carriers lacking the financial stability necessary for safe operation. No carrier can operate without such a certificate. The FAA is determined to enforce these requirements strictly, particularly after the Paradise Airlines accident of March, 1964.<sup>55</sup> The accident was caused by the combination of the airline's failure to replace a defective instrument and the pilot's unwise decision to land under instrument conditions and both are thought attributable to financial instability.

Profitable airlines operating in regulated markets have experienced accidents caused by negligent maintenance.<sup>56</sup> No supervisory system is perfect. But the FAA can ensure that new entrants meet standards at least as stringent as those applied to presently-certificated carriers. Further, if public sentiment demanded, the FAA could expand its enforcement of safety standards to include preventative inspection. The added cost of such inspections could be financed by a tax on air travel, so that the beneficiaries of the inspection system — the travelling public — would pay it. This system would provide improved safety at a rela-

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52. See note 17, *supra*.

53. See text accompanying notes 114-17, *infra*.

54. These are issued under Civil Air Regulations, 14 CFR § 42 (1964), and certify that the holder conforms to the safety requirements established by the FAA. The regulations require extensive disclosure of financial information, including resources, financially interested parties, and projections of expected income and expenditures. The safety requirements for intrastate operators of airline-size aircraft are the same as the requirements under 14 CFR § 42.512 (1964), Part 40, which governs C.A.B.-certificated carriers. 14 CFR § 42.1(4) (1964). As of April 1, 1965, 14 CFR § 40, 41 and 42 were consolidated and revised as Federal Air Regulation No. 121, 14 CFR — (1965). The changes reflect efforts to make the standards of minimum financial stability even more rigorous than before. FAA operating certificates should not be confused with CAB certificates of public convenience and necessity, the economic permits issued under 4 U.S.C. § 1371, 72 Stat. 754 (1958).

55. CALIFORNIA LEGISLATURE, TRANSCRIPT OF PROCEEDINGS: INTRASTATE AIR CARRIERS IN CALIFORNIA AVIATION 50 (1964) [hereinafter cited as INTRASTATE AIR CARRIERS IN CALIFORNIA].

56. Northwest Airlines, one of the most profitable trunk carriers, experienced a fatal accident in October, 1961, at Chicago, Ill. as a result of a mechanic's failure to connect the aileron controls properly, and the negligence of an inspector in approving the faulty connection. *Aviation Week*, December 24, 1962, pp. 77-91. *Flight International*, Feb. 25, 1965, p. 273.

tively slight cost and would make possible a public judgment as to whether the safety benefits were worth the cost. Such a tax would surely burden the consumer less than the hidden costs imposed by the present system of economic regulation.

The present structure of air transport economic regulation was created in response to fears and assumptions founded in the experiences of an infant industry operating in the Depression. Its perpetuation is in part attributable to the failure of regulators and observers to distinguish clearly the "system" from the objectives it was designed to achieve. The objectives of regulation — economic stability, adequate and economical service to the public, and safety<sup>57</sup> — could today be better achieved through a different regulatory scheme. The performance and experience of the Los Angeles-San Francisco market demonstrates that alternative systems may function better in fact as well as in theory.

### III. CALIFORNIA, A TEST CASE

#### A. Evidence

In view of the comprehensive character of the Civil Aeronautics Act and the present worldwide agreement that entry and fare restrictions are necessary,<sup>58</sup> it is not surprising that only one major unregulated market exists in the entire world. What is surprising is that this market — air transportation between Los Angeles and the San Francisco-Oakland area — is the largest in the world. Although this market is within the extensive operational jurisdiction of the FAA, it is not within the more limited economic jurisdiction of the CAB. The economic provisions of the Act do not apply to carriers supplying purely local transportation between these two cities because they are within the same state, and transportation can be conducted without overflying another state or international waters.<sup>59</sup> Certificated domestic trunk carriers flying this route are subject to both Board and California Public Utilities Commission regulation, but carriers operating purely intrastate are subject only to the jurisdiction of the Commission. Although the Commission has power to regulate airline rates, it does so very flexibly.<sup>60</sup> The Commission is required by statute to hold inquiries into fare increases and decreases so marked that there is reason to believe that the fare is non-compensatory, but it makes a practice of

57. 72 Stat. 740, 49 U.S.C. § 1302 (1958).

58. "Nobody has ever advocated unregulated competition." From an editorial in *Flight International*, Feb. 25, 1965, p. 273.

59. Hence such transportation is not "interstate air transportation" within the meaning of the Act (49 U.S.C. § 1301(21)) and not subject to the jurisdiction of the Board. Because the safety jurisdiction of the Federal Aviation Agency applies to "civil aircraft in air commerce" (49 U.S.C. § 1421(a)) and the definition of "air commerce" (49 U.S.C. § 1301(4)) is more inclusive than that of "interstate air transportation," carriage of passengers by air between the cities is subject to federal safety regulation.

60. The only recent important case in which the Commission exercised its power over rates was in *Western Airlines, Inc.*, 62 Cal. P.U.C. 553 (1964) (Dec. No. 67077) in which a fare differential based on which airport a passenger used for travel over the routes under study was held to discriminate against Oakland and Long Beach passengers and was therefore illegal.

approving virtually all changes. It cannot regulate entry.<sup>61</sup> Nor can it require service to any point, grant subsidy, or limit the route pattern of any enterprise.<sup>62</sup> As a result, the California intrastate markets are relatively unregulated and, by world standards, are virtually free markets.<sup>63</sup>

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61. INTRASTATE AIR CARRIERS IN CALIFORNIA 60-61.

62. *Id.* at 54-67.

63. The CAB, in 1954, attempted to subject the intrastate carriers to the Act, but the result was inconclusive and the matter was apparently dropped. *CAB v. Friedman Aeronautics, Inc.*, 246 F.2d 173 (9th Cir. 1957). Seven years later, Alan S. Boyd, then Chairman of the CAB, complimented the performance of Pacific Southwest Airlines, (the largest of the intrastate carriers) and indicated the Board's intention to refrain from interfering with its operations. INTRASTATE AIR CARRIERS IN CALIFORNIA 97. He indicated, however, that the Board retained an interest in intrastate operations and might some day feel compelled to exert jurisdiction. *Id.* at 107-08. But the Board has not always acted as generously toward Pacific Southwest (for example it has refused to allow PSA to knowingly accept the reservations or solicit the business of travelers from outside the state, *id.* at 7-8 and has attacked attempts to establish an intrastate system elsewhere. In the best-known and most recent of these incidents, the Board strenuously contested a ruling of the Hawaiian Public Service Commission authorizing Island Airlines, a coach carrier, to fly in competition with Hawaiian Airlines and Aloha Airlines, both CAB-certificated and subsidized. The state had supported the activities of Island because it hoped that Island would provide cheaper transportation than that provided by the CAB-certificated carriers. The Board contended that, because the transportation between the islands took place in part over international waters, the authorized transportation was "interstate air transportation" within the meaning of the Act, and subject solely to its jurisdiction. The Board was upheld in the Federal District Court, and an injunction was granted. *CAB v. Island Airlines, Inc.*, 235 F. Supp. 990 (D.C. Hawaii 1964).

In California, state groups urged from time to time that the Public Utilities Commission be given broader regulatory powers. These suggestions were refined into a bill which periodically was introduced in the California Legislature, most recently as Assembly Bill No. 413, 1965 Session. To the author's great regret, the bill was passed and signed into law on June 17, 1965. The text of this Comment was prepared prior to the passage of the act and does not reflect this development.

The new act as passed amends Part 2 of Division 1 of the Public Utilities Code by adding a chapter (Chapter 4) regulating intrastate passenger air carriers. It gives the Public Utilities Commission full powers to regulate entry, rates, and such matters as ticketing, reservations, baggage handling and advertising. It does not provide for subsidy or compulsory service to unprofitable points. The Act contains a grandfather clause so worded that PSA is the only carrier likely to be eligible for a certificate of public convenience and necessity, without which no intrastate carrier is permitted to operate.

It has been asserted that the certificates established by the act are merely certificates of fitness and that the act provides a regulatory scheme much less restrictive than that administered by the C.A.B. Interview with J. Floyd Andrews, President, P.S.A., Oakland, Calif., Jan. 5, 1965. Unfortunately, the language of the act does not support this interpretation. It provides standards for carrier selection which bear a disquieting resemblance to those of the Federal Act. Cal. Pub.U.C.A., Div. 1, Part 2, Chap. 4, Art. 2, §§ 2750, 2751, 2752, 2753, 2757, 2759, 2762, 2763 (1965). It is possible, of course, that the Commission will administer its new mandate with a gentle hand. Before the passage of the Act, some members of the Commission had taken the position that the free market had served California well in keeping fares at a reasonable level and providing the kind and quality of service required by the public. Frederick B. Holoboff, President, California Public Utilities Commission, testimony before California Legislature, INTRASTATE AIR



Although the Los Angeles-San Francisco market has always been an important one, it was the fifth largest in the United States in 1948<sup>64</sup> (in terms of passenger miles), and became the largest only in 1961.<sup>65</sup> Today, more revenue passengers travel between Los Angeles and San Francisco than between any other pair of cities in the world.<sup>66</sup> More than 60 round trip non-stop flights are operated each weekday and more than 75 each Friday, Saturday, and Sunday.<sup>67</sup> In March, 1965, more than 9,000 persons per day traveled between the two cities by air.<sup>68</sup> The market has grown rapidly (it was only

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CARRIERS IN CALIFORNIA 54-67, and interview, San Francisco, California, January 4, 1965. But others were strongly in favor of more active regulation by the Commission. See, *e.g.*, dissent of Commissioner McKeage, *Trans World Airlines, Inc.*, 59 Cal. P.U.C. 722, 727 (1962) (Dec. No. 63814). The elaborate regulatory power granted the Commission by the act makes it likely that those favoring more stringent regulatory control of intrastate air transportation will prevail. Such regulation, it has been demonstrated above (text, Part II, *supra*), cannot add economic benefits to those already provided by free-market competition. It cannot even furnish other services, since the act expressly denies the PUC the powers necessary to do so (§§ 2763, 2764). Regulatory experience elsewhere suggests that the ultimate result will be government protectionism, the proliferation of inefficient practices, and oligopolistic market behavior. That Californians have permitted private firms to receive protection at consumer expense in the guise of protection of the public interest is eloquent testimony to public and legislative misunderstanding of both the possibilities and limitations of government economic regulation. California today enjoys the best air transportation available anywhere in the world. This transportation has been provided through the opportunities afforded enterprising firms by the free market. California's attempt to squeeze further benefits by regulation from a system which has provided the public with abundant, varied, and inexpensive transportation will very likely earn the Legislature a place in economic folklore alongside the owner of the goose that laid the golden eggs.

64. RESEARCH DIVISION, TRANSPORTATION DEP'T., CALIFORNIA P.U.C. 9 (1949) [hereinafter cited as P.U.C. REPORT].

65. *Aviation Week*, Sept. 14, 1964, p. 43.

66. *Aviation Week*, Sept. 14, 1964, p. 43; Nov. 16, 1964, p. 36.

67. *Official Airline Guide*, March 15, 1965, pp. 235-236, 407.

68. Calculated from *Aviation Week*, Apr. 19, 1965, p. 47 and Apr. 26, 1965, p. 40.

Figures on the exact size of the Los Angeles-San Francisco market conflict, principally because PSA is not required to report traffic figures and is not included in the C.A.B. *Origins and Destinations* studies. The market figures used in this Comment were compiled or calculated from a variety of sources, including *Aviation Week*, the Airlines themselves, interviews, C.A.B. *Origins and Destinations*, and PSA's *Prospectus* for its stock offering of 1963. They have been synthesized where possible, but may occasionally be inconsistent. The author does not believe that any inconsistencies affect his conclusions. For example, the 9,000 figure was reached by taking 75% of PSA's traffic for the first quarter of 1964 (the approximate proportion of PSA's total traffic which can be attributed to Los Angeles-San Francisco) and dividing it by PSA's market share. For example, the daily size of the market for the first quarter of 1965 was computed as follows: PSA's traffic for the first quarter of 1965 was 357,000 passengers. *Aviation Week*, April 19, 1965, p. 47. It is commonly assumed that 75% of PSA's traffic moves between Los Angeles and San Francisco. Thus PSA carried about 267,750 passengers between the two cities in the first quarter of 1965. Its market share during the six months from September to March, 1964-65, was 32.8%. *Aviation Week*, April 26, 1965, p. 40. If its market share is assumed to be a constant for the six-month period, the entire market averaged 9,069

3,500 persons per day in 1959)<sup>69</sup> and has been characterized by intense competition, a wide variety of marketing strategies, and the lowest overland air fares in the world.

There are striking contrasts between the performance of this market and the performance of similar markets in the United States regulated by the CAB. For example, although the number of passengers traveling by air in the United States as a whole has increased between the years 1959 and 1964 by approximately 50 per cent,<sup>70</sup> the number of travelers passing between Los Angeles and San Francisco by air has increased almost 300 per cent.<sup>71</sup> Although the average jet coach fare level in the United States is approximately 5.5 cents per mile over stages considerably longer, and hence cheaper to operate, jet coach fare for the 350-mile trip from San Francisco to Los Angeles is approximately 3.9 cents per mile.<sup>72</sup> Although the lowest fare between Boston and Washington, served only by CAB-certificated trunk carriers, is \$24.65, Pacific Southwest Airlines, using the same modern turbo-prop equipment, carries passengers between Los Angeles and San Francisco, only 59 miles closer together, for \$11.43. The jet fare is only \$13.50.<sup>73</sup> In other markets, obsolescent though economically viable aircraft have been rapidly retired as new aircraft have been introduced prematurely, because the fare structure has emphasized premium service and has not allowed the owner of obsolescent equipment to operate at a fare reflecting his lower capital costs. In Los Angeles-San Francisco, however, it has been common to see obsolescent equipment operated at fares reflecting the lower capital cost until replaced by new equipment so much more efficient that the capital cost charges could be amortized at fares which reflected customer demand for the new equipment.<sup>74</sup>

This market is also characterized by relatively even traffic levels, without important daily or seasonal peaks. The market generates both business and "discretionary" travelers, hence the weekend traffic is slightly greater than the weekday traffic. But this discretionary travel is not seasonal, as it is in most vacation markets. This lack of pronounced peaks and dips enables a smaller carrier without other routes to employ equipment profitably on a consistent basis. The consistency makes planning more accurate for both large and small

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passengers per day during the first quarter of 1965. This estimate is probably conservative, since PSA's market share was probably higher for the fourth quarter of 1964 than for the first quarter of 1965.

69. Interview with United Air Lines Staff, Chicago, Ill., Jan. 6, 1965.

70. CAB, Air Carrier Traffic Statistics, December 1964, at 1, December 1959, at 1.

71. C.A.B., Aviation Week, Sept. 14, 1964, Dec. 21, 1964, Apr. 26, 1965 at p. 40; PSA Prospectus, Oct. 24, 1964; Statistics of competing airlines; INTRASTATE AIR CARRIERS IN CALIFORNIA at 55; Western Air Lines, Inc., 62 Cal. P.U.C. 553 (1964) (Dec. No. 67077). See note 68 *supra*.

72. OFFICIAL AIRLINE GUIDE, June 15, 1965.

73. *Id.* at 511, 456. All references to fares may be confirmed in the appropriate issue of OFFICIAL AIRLINE GUIDE, with the exception of the early California intrastate rates, which may be found in PUC REPORT 7.

74. See text accompanying notes 95-96 *infra*.

lines and contributes to the high level of efficiency which is both the cause and effect of lower fares.

Unlike most air transport markets, California is not today primarily a business and luxury market. Over 75 per cent of the travel between Los Angeles and San Francisco takes place by air. In the United States as a whole, only about 10 per cent of intercity passengers use common carriers at all, and the airlines carry only about half of this traffic.<sup>75</sup>

Four carriers are currently important factors in this market.<sup>76</sup> Two of them, United Air Lines and Trans World Airlines, are among the "big four" trunklines. One of them, Western Air Lines, is one of the smallest, though one of the most profitable, domestic trunk carriers. The other, Pacific Southwest Airlines (PSA), is an intrastate carrier operating without a CAB certificate between San Francisco, Los Angeles, and San Diego. PSA is equipped with the most modern equipment and currently it and United share almost evenly over 70 per cent of the market.<sup>77</sup>

The market shares of these airlines have reflected changing circumstances. General trends have emerged and then been reversed by changing competitive conditions. For example, United Air Lines' share of the market declined from a dominating 62 per cent to a barely participating 15 per cent from 1948 to the Spring of 1964, due to its unwillingness to adapt to changing competitive conditions. With United's decision to compete in earnest by offering jet service at low fares, its share rose rapidly, favored by its image as a "quality" airline, and it has regained its lost lead.<sup>78</sup> PSA's share rose from insignificant in 1949 to a high of just over 50 per cent in Spring, 1962 (just before the first competitive response by the trunklines), and is presently about 35 per cent. PSA suffered from an equipment disadvantage when United entered its Boeing 727 jets in the market, but since April 9, 1965, PSA has had 727's of

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75. BUREAU OF THE CENSUS, DEP'T OF COMMERCE, STATISTICAL ABSTRACT OF THE UNITED STATES 570 (8th ed. 1964), INTRASTATE AIR CARRIERS IN CALIFORNIA at 55; P.U.C. REPORT 14-15.

76. This market is of considerable importance to the carriers operating it, both for the business it generates directly and in the case of the trunklines, for the advertising value that it has in influencing the travel-conscious West Coast traveler. For example, United estimated that in 1964 approximately 35% of its passengers originated or terminated at Los Angeles or San Francisco. Interview with Blaine Cooke, United Air Lines Vice President-Marketing, Chicago, Ill., Jan. 6, 1965. Although this includes many flights outside the market under study, the passengers on such flights were often either California residents or frequent visitors and hence could be influenced by United's participation in the Los Angeles-San Francisco market. As a result, United regards its identity in this market as important for advertising purposes. A guess might place the figure for a similar measurement of Western's traffic even higher than that for United. (Los Angeles and San Francisco are the two largest metropolitan areas on Western's domestic system, which includes only nine large centers of population. The Los Angeles-San Francisco route alone accounted for 10% of Western's passengers in December 1963).

77. Aviation Week, Apr. 26, 1965, p. 40.

78. *Ibid.*

its own and is regaining lost ground.<sup>79</sup> Western, traditionally a poor second to United among CAB-certificated carriers (1961 share: about 18 per cent), experienced spectacular growth starting in June, 1962, when it initiated low-fare services.<sup>80</sup> Its market penetration reached a high of around 35 per cent,<sup>81</sup> but it failed to respond quickly enough to United's jet bid and its market share is now approximately 19 per cent.<sup>82</sup> Western has introduced jet service and is trying to regain some of its lost share. TWA was traditionally a follower in the market, with a historic market share of about 5 per cent.<sup>83</sup> Recently it has promoted an aggressive pricing policy on its jet services and has increased its share to about 10.5 per cent.<sup>84</sup>

At the beginning of 1949 United, Western, and TWA, certificated by the CAB, were the only carriers operating in the market.<sup>85</sup> The generally high fare levels, the absence of restrictions on entry, the prevailing optimism about the future of air transportation, and the availability of used war-surplus transports stimulated the development of a group of small intrastate carriers in California.<sup>86</sup> Low capital costs, minimum services, and high density seating kept unit costs low. By the end of the first year of operation only three of these lines — California Central, Pacific Southwest and Western Airlines of California — remained as significant factors in the market.<sup>87</sup> (WAL of California, which leased equipment from and allegedly was financed by Western Airlines, Inc. is generally acknowledged to have been a "fighting ship" set up by Western for the purpose of driving the other operators out of business.<sup>88</sup>) These "coach-class" carriers operated at rates which were less than half those charged

79. Aviation Week, May 10, 1965, p. 47.

80. Aviation Week, Sept. 14, 1964, p. 43.

81. Interview, Blaine Cook, *supra* note 76.

82. Aviation Week, Apr. 26, 1965, p. 40.

83. Aviation Week, Sept. 14, 1964, p. 43.

84. Aviation Week, May 10, 1965, p. 47.

85. In 1948, United had about 62% of the traffic and Western about 29%. GILL & BATES, AIRLINE COMPETITION 357 (1949).

86. First of these was California Central Airlines, followed by Robbin Airways, Pacific Southwest Airlines, California Arrow Airlines, and Western Airlines of California.

87. P.U.C. REPORT 24-40. PSA was started as an adjunct to a flying school in San Diego and had in operation only two DC-3 aircraft. California Central Airlines and Western Airlines of California were flying DC-4 aircraft at this time, and PSA acquired such aircraft in 1955.

88. This view of Western Air Lines of California seems justified by the PUC REPORT at 38, which states:

The DC-4 aircraft with high density seating capacity is leased under terms of a contract in which Western Air Lines, Inc. provides, maintains, and operates the aircraft of the Western Air Lines of California operation.

The carrier has limited the duration of its present tariff to three months.

In view of the fact that the operation was achieving load factors of approximately 80% (*Id.* at 39) and the PUC estimate was that such an operation could achieve a 10% return on investment at 58.8% load factor (*Id.* at 56), Western's withdrawal from the intrastate market in 1950 is suspect, unless it had never intended to remain.

by the certificated airlines (then \$21.05 on United Airlines and TWA; \$20.00 on Western Airlines), and were more or less ignored by United, TWA, and by Western's certificated operations.<sup>89</sup> The new lines were an immediate public success and experienced load factors as high as 85 per cent. However, most of them were thinly financed and poorly managed. The largest, California Central Airlines, had considerable labor and management difficulties and finally went out of business in 1955. The smallest was PSA.

PSA was in insecure financial condition from 1952 to 1956 but by 1957 it was operating profitably, earning \$196,606 in that year on revenues of \$2,786,658.<sup>90</sup> In 1958, its last full year of piston operation, PSA's earnings rose to \$322,000 on revenues of \$3,516,000 and it carried 296,000 revenue passengers.<sup>91</sup> In November of 1959, the carrier received its first three Lockheed Electras, modern turbo-prop aircraft designed for short-to-medium haul transportation. In 1960, its first full year operating this equipment, the carrier transported 621,000 passengers for revenues of \$7,545,309.<sup>92</sup> According to the figures of a competitor, PSA carried 28 per cent of the total traffic between Los Angeles and San Francisco that year, as compared with 13 per cent the year before.<sup>93</sup> By 1962 (its competitors still had failed to respond), PSA had increased its market penetration to 43 per cent and was now operating five Electras.<sup>94</sup> The market had grown from an average of 3,500 passengers per day in 1959 to 4,200 in 1962.<sup>95</sup>

On June 1, 1962, a trunk carrier for the first time responded to the competitive threat posed by PSA. Western Airlines initiated a \$12.95 "Thriftair" fare between the two cities, operating obsolescent and fully depreciated DC-6B aircraft in a high-density 92-seat configuration. PSA's fare was \$13.50 at the time. Western, traditionally opposed to unusually low fares, was able to operate at this low fare because it had no capital costs on the aircraft involved. The new service was an instant success, attracting either passengers who were interested in the lowest rate possible, or who were too timid to fly PSA because of its somewhat "unofficial" image (resulting from its lack of federal certification). Thriftair became even more successful when Western abandoned the inconvenient "air bus" feature and began accepting reservations. Western's share of the market went from 15 per cent in 1961 to 32 per cent by the end of

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89. Western attempted a fare experiment in 1949 whereby in return for dropping meal service it lowered its tariff 5%. This was allowed by the CAB, but the differential proved too small to attract significant amounts of traffic and Western dropped this fare differential in October, 1949. In any case, this tariff was filed before the intrastate carriers commenced operations and was not a response to them, although the existence of the intrastate carriers may have hastened its demise. CHERRINGTON, *op. cit. supra* note 41, at 368-73.

90. PSA *Prospectus* Oct. 24, 1963.

91. *Ibid.*

92. *Ibid.*

93. Interview, United Air Lines, *supra* note 76.

94. *Aviation Week*, Sept. 14, 1964, p. 43. PSA *Prospectus*, Oct. 24, 1963, p. 8.

95. *Aviation Week*, Sept. 14, 1964, p. 43.

1963, mostly at United's expense.<sup>96</sup> The market continued to grow very rapidly reaching 6,800 passengers per day by the end of 1963.<sup>97</sup> On February 25, 1963, Western reduced its Thriftair fare to \$11.43 to increase the differential between its own and PSA's fares and thus minimize the diversionary effect of PSA's more modern Electra equipment. United's introduction of Jet Commuter service in the autumn of 1964 damaged Western's competitive position. Its now-obsolete piston equipment was inadequate competition for PSA's Electra turboprops and United's Boeing 727 jets. Western ordered four Boeing 720B's (the type it operates on long-haul routes) with special high-density seating (146 seats) for use on its California routes. It reduced but did not eliminate its DC-6B Thriftair schedules in an attempt to maintain market identity pending the introduction of the jets on April 1, 1965.

In September of 1964, after its share of the market had shrunk from 62 per cent in 1949 to 15 per cent in June of 1964,<sup>98</sup> United became a serious competitor. It introduced two of its brand-new Boeing 727 jets, aircraft designed specifically for high frequency operation over short routes and offering very low aircraft-mile costs and correspondingly low seat-mile costs. These aircraft were operated exclusively between the two cities, creating an airline-within-an-airline. They were set up in a high-density configuration (114 seats) and were offered at \$14.50 one way, only one dollar higher than PSA's Electra fare. Although the Boeing 727 as operated by United over this route does not offer a significant time advantage over PSA's turboprop aircraft,<sup>99</sup> the demonstrated consumer preference for new aircraft and jet service permitted this fare differential.

United's new service was immediately successful, and ultimately regained for it the leadership position which it had abdicated. Its well-tryed marketing image, the new equipment, and the low fare attracted passengers, especially businessmen (who have traditionally favored United). Load factors were about 80 per cent, the maximum tolerable without passenger inconvenience in an operation of this kind. Initially, United operated four round trips per day using two aircraft. Within six months, it had increased the frequency to twenty round trips per day using four aircraft. Advertising stimulated traffic. Market growth was spectacular. Even with United's quintupled scheduling, load factors remained at a comfortable and profitable two-thirds.<sup>100</sup>

Despite the new competition, PSA's traffic continued to grow, although at a slower rate. To compete with United, it ordered six Boeing 727 jets for service

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96. See note 68 *supra* for methods used in calculating market data.

97. *Ibid.*

98. *Ibid.*

99. This is because of the relatively short distance between the two cities and the elaborate air traffic procedures which United's method of operation requires. PSA usually flies VFR (Visual Flight Rules) (interview with W. R. Crandall, Vice President, PSA, Oakland, Calif., Jan. 5, 1965), thus omitting time-consuming instrument approaches and departures. United flies IFR (Instrument Flight Rules). PSA flies the route in its Electra in 60 minutes, while United's 727 flies it in 55 minutes.

100. Aviation Week, Apr. 12, 1965, p. 42.

which started April 9, 1965. It is operating these jets at \$13.50 (the former Electra fare between San Francisco and Los Angeles), and United has lowered its \$14.50 fare to match PSA. Western's Boeing 720B jets are offered at the \$13.50 fare.

TWA acquired unrestricted rights between Los Angeles and San Francisco from the CAB in the *Pacific Southwest Local Service* case.<sup>101</sup> In view of the fierce competition it has not exercised these rights and carries passengers only incidentally to its interstate service. Faced with a shortage of jet equipment, especially the Boeing 727, it apparently finds this fiercely competitive market, demanding its best equipment and energies, less attractive than the cartelized North Atlantic run or protected transcontinental runs. TWA charges the prevailing jet fare on the local portion of interstate flights originating or terminating at San Francisco or Los Angeles. It can do this because the service can be priced on a marginal-cost basis, since the seats would not otherwise be filled and the flights would operate anyway. TWA's market penetration rarely rises above 10 per cent,<sup>102</sup> and its chief importance to the structure of the market is as a potential competitor should one of the leaders falter.

Competition has in the past prevented the market from becoming static, and the participants are now preparing for an uncertain but promising future. Because of the great productivity of PSA's and Western's jets, the capacity on this route will soon be at least tripled compared with September, 1964.<sup>103</sup> Any over-capacity problem might be even more acute if PSA does not change its decision to retain its Electras. They could still be sold at a favorable price in view of the Electra's high resale value. PSA will have to find or make a market for capacity 3½ times its March output.

Western's four-engine, 250,000 pound Boeing 720B is hardly the ideal aircraft for short haul operation. Although its aircraft-mile cost is quite low for a plane of its size<sup>104</sup> and its seat-mile cost perhaps even lower than the 727's, it is a very large economic unit. Since its full capacity will be used only at peak periods, the high capital costs, the high aircraft-mile cost, the complicated ground servicing requirements and longer turn-around time may make it difficult to compete effectively on the route. Western's allocation of 720B's to this route may signify a return to the "fighting-ship" philosophy that occasioned the establishment of Western Airlines of California in 1949.<sup>105</sup> Now, as then, their capital commitment is such that the aircraft could be returned to regular services, were Western to decide either that the experiment had succeeded in

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101. 35 C.A.B. 50 (1962).

102. *Supra* notes 83-84.

103. Western's 720B seats 146 and its DC-6B seats 92; P.S.A.'s 727 seats 122 and its Electra seats 98; United's 727 seats 114.

104. Aviation Week, "Operating Costs of Turbine Aircraft in Airline Service," May 31, 1965 at 36-37.

105. See note 88 *supra* and accompanying text.

eliminating the "upstart" competition or that, as in 1949, such tactics were doomed to failure. It could then convert the 720B's into its normal configuration for use on more appropriate routes.<sup>106</sup> Western might offer San Francisco to Los Angeles seats on its interstate flights south, and Los Angeles to San Francisco seats on its interstate flights north. This would enable them to maintain some market identity, much in the same way as TWA does.

United has considerable resources, including over sixty Boeing 727 jets in service or on order, so that if necessary more aircraft could be committed to the market. The use of this equipment would not be costless. Aside from the opportunity cost of not using it elsewhere, United must convert this equipment, since it operates the 727 on the Los Angeles-San Francisco route in a seating configuration not used elsewhere.

### B. Conclusions

The economic evils which the air transport industry and its regulators fear will occur without regulation have not materialized in the Los Angeles-San Francisco market. Competition has not been "ruinous." Despite low fare levels, efficient firms have been able to operate profitably. PSA, with no other important source of income, has operated at a profit since 1957, and continues to do so in the face of competition from United.<sup>107</sup> United's Jet Commuter service has been profitable.<sup>108</sup> During the 1962-1964 period, Thriftair returned a profit for Western, but market developments since United's low-fare entry have turned this profit into a loss. Western's active promotion of its "Fanjet Commuter" suggests that it believes it can make a profit with the new service, but the overcapacity situation which the new equipment has created makes it almost certain that one of the competitors will be badly burned. Past history suggests that the burned party will be the least efficient or least adaptable firm. This market has, from the introduction of intrastate coach-class service in 1949, rewarded handsomely effective marketing and operation and penalized ruthlessly poor judgment and inefficiency.

PSA's success refutes the contention that air transport is a natural-monopoly industry. Once minimum efficient size has been reached, larger scale does not confer cost advantages. There is evidence that PSA's operating costs are lower than either United's or Western's.<sup>109</sup> PSA's operation is notable for its effi-

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106. It could use the reconverted 720B's on its applied-for Hawaii route, on which no government action has been taken, or on routes awarded in the *Pacific Northwest-Southwest Service Case*, C.A.B. Docket No. 15459, *et al.* now pending before the Board.

107. *PSA Prospectus*, Oct. 24, 1963, p. 4; *PSA Annual Report to Shareholders, 1964*; *Aviation Week*, Apr. 26, 1965, p. 43.

108. Interview with Blaine Cooke, Chicago, Jan. 6, 1965.

109. PSA achieves a higher utilization of its equipment than its competitors, thus achieving lower capital costs per unit output. Its fuel costs are lower, because its captains spend less time on approach and climb-out due to PSA's flight procedure (see text accompanying note 112 *infra*). Since the days when its DC-3's had 31 seats, compared to the 28 of its competitors, PSA has always managed somehow to squeeze a few extra seats into the aircraft it operates. Its 727's have 122 seats, compared to United's 114, be-



ciency, fresh thinking, and high level of customer acceptance.<sup>110</sup> It is clear that no other carrier, including United with its enormous resources (1964 revenues more than thirty times PSA's),<sup>111</sup> is a more effective competitor in this market. PSA has an operation well-suited to the particular needs of its route. It preserves both an underdog appeal to the public, and an identification as a California product. It has had no difficulty financing the purchase of the most modern equipment and in this respect can only be equalled and not surpassed by its larger competitors. PSA may even have an advantage over Western, whose commitments to other routes influence it in such a way as to prevent its competing with maximum efficiency in the Los Angeles-San Francisco market. For example, rather than purchase 727's for the route, Western chose to standardize its equipment and purchased less appropriate 720B's which were already in service on its longer routes. PSA, with a fleet geared specifically to the California commuter market, and United, with its vast, diversified fleet, are in better technological positions than Western, which is neither small enough to specialize nor large enough to diversify.

PSA may even have advantages over United. Geared as it is to service in markets which emphasize premium passenger comfort and which have protected entry and fare structures, United is not experienced in the kind of marketing, passenger-handling and aircraft-handling techniques demanded by an unprotected market with an experienced and sophisticated clientele. PSA's small size makes it a less tempting target for unionization. This advantage makes possible more flexible use of personnel. PSA's flight operations are more informal than either United's or Western's, and captains have more discretion in flight planning and execution. For example, in the favorable flying weather which is usual in California, PSA's captains fly VFR (Visual Flight Rules). This permits them to omit lengthy instrument approaches and departures, and results in a consistent 15 per cent reduction in flight time, which saves money for PSA.<sup>112</sup> United and Western operate their California routes IFR (Instrument Flight Rules) in uniformity with their other routes, most of which are operated under less favorable flying conditions.

Lack of regulation has not caused chaos in California. Unregulated entry and price competition have not resulted in a multitude of tiny firms scrambling for passengers to the confusion of the general public. As the California market developed, advanced technology and effective marketing became essential to cause PSA ordered its equipment without full galleys, since meals are not served on this route. United, having ordered its 727's with its system needs in mind, carries the weight and space of the idle equipment. At most times the extra seats make no difference, but at peak hours, when the load factor approaches 100%, the extra seats mean extra revenue.

110. See also *Aviation Week*, July 1, 1963, p. 48; July 8, 1963, p. 37.

111. C.A.B. Air Carrier Financial Statistics, Sept. 30, 1964, p. 17, line 13; *Aviation Week*, Apr. 26, 1965, p. 43.

112. Operating time is less for a given amount of revenue, hence unit costs are lower, more revenue hours may be flown on the same capital investment.

profitable operation; and it became increasingly difficult for a thinly-capitalized fringe operator to survive. Ultimately, no more than three important competitors remained, along with TWA's holding operation and, periodically, a fringe operator trying to find a niche in the market.

The history of Trans California Airlines illustrates the difficulties faced by a fringe operator in a mature competitive market. Trans California commenced operations in the summer of 1962. The line operated four obsolete piston-engined Constellations and charged a fare of \$10.99 one way and \$21.00 round trip. It ceased operations in the fall of 1964, apparently unable to make a profit, although it was carrying more than 10,000 passengers per month at the time of its demise.<sup>113</sup> The fare structure is so competitive in this market that it was unable to continue operating at fares low enough to attract passengers to its obsolete equipment.

Caves, in a discussion of capital barriers to entry and market structures,<sup>114</sup> cites a study by United Research, Inc., in concluding that four or five carriers are the most a well-developed short to medium-haul market can support at any one time.<sup>115</sup> Both marketing and technological costs account for this limitation.<sup>116</sup> This analysis is borne out by the California experience, and indicates that the public has little to fear from unregulated entry. Participants in a market will be naturally limited to a number which ensures both competition and technical efficiency without chaos. The free-entry California market has and will have for the immediate future approximately the same structure — two to three major carriers — as most regulated routes.<sup>117</sup> The important question is whether these carriers ought to be chosen administratively or by the competitive forces of the market. And the important difference is that transportation by air in the California unregulated market can be purchased for half to seven-tenths as much as it costs elsewhere.

Structural stability should not be confused with stagnation. Although the number of firms servicing a market will remain (and have remained in California) more or less constant over time, no particular firm is guaranteed continued participation. There are no barriers to entry in the California market sufficient to protect an entrenched firm from its own inefficiency or uncompetitive pricing. PSA's successful entry in 1949 at the expense of then entrenched United attests to the ease of entry at that time. Now, PSA is strongly in favor of the licensing bill currently before the legislature.<sup>118</sup> Certain of a certificate if the bill were to be enacted, PSA insists that some official distinc-

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113. 62 Cal. P.U.C., 553, 558 (1964) (Dec. No. 67077).

114. Caves, *op. cit. supra* note 42, at 84-97.

115. *Id.* at 96.

116. *Ibid.* This is in part because substantial scheduling and therefore substantial investment is required to create and maintain even a minimum market "identity."

117. T.W.A. cannot be considered a major carrier on this route.

118. INTRASTATE AIR CARRIERS IN CALIFORNIA at 6; contrast with the statement by L. A. Mudgett, President of Trans California Airlines (a firm which had not been able to find a niche in the market), *Id.* at 31-33.

tion should protect it from the inroads of new competition. This attitude is a recognition that there is an ever-present possibility of new competition in this market. Absolute capital requirements are now considerably greater than in 1949 and the war-surplus aircraft market no longer provides obsolescent equipment at greatly reduced cost, but barriers to entry have not prevented new competition from materializing in the recent past. Although Trans California was unable to survive and a prospective entrant, California Airlines, has been unable to create a sufficiently stable capital structure to satisfy the FAA's safety requirements, neither line's difficulties stem from entry barriers. Rather, fares are so low and service so good that there is little unsatisfied consumer demand. Hence, capital is not attracted to the market. If the fares were to rise or the service to deteriorate, new opportunities for profit might well attract new capital.

Low fares, intensive advertising and constant innovation in service account for the spectacular growth of the Los Angeles-San Francisco market. This growth indicates that at least here there is elasticity of demand for air transportation. In 1949, a Public Utilities Commission survey disclosed that only 34 per cent of all passengers using the newly created and inexpensive uncertificated airlines had been diverted from regular certificated carriers.<sup>119</sup> The remaining 65 per cent either had been diverted from surface transportation, or but for the inexpensive air transportation would have taken no trip at all.<sup>120</sup> Thus the intrastate carriers themselves were the first impact on the market. PSA acquired Electra equipment in 1959 and almost doubled its passenger traffic that year. Two years later, its traffic had almost doubled again. Even more important, during this three year period, while passengers carried in air transportation had increased for the United States as a whole by only 10 per cent, the California market had grown by 30 per cent.<sup>121</sup> When Western introduced Thriftair in 1962, the market expanded significantly; and Western's fare reduction on Thriftair in 1963 resulted in spectacular market growth. United's well-advertised introduction of low fare jet service almost doubled its patronage in the first nine months of operation. Between 1959 and 1964 while the United States market grew by only 50 per cent, the California market grew by 300 per cent.<sup>122</sup>

Both the 1949 survey and the continuing attraction of great numbers of travelers to air transportation suggest that the high level of discretionary traffic over this route is an effect of low fares. The coincidence of innovation in service plus fare reductions and spectacular market growth suggests that innovation and low fares have in large part *caused* the market growth.

Despite the impressive and continuing "coincidence" of innovation, fare reduction and market growth, some observers trace the growth to causes other

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119. RESEARCH DIVISION, TRANSPORTATION DEP'T., CALIFORNIA P.U.C., REPORT, 15, 23.

120. *Id.* at 15.

121. CAB Air Carrier Traffic Statistics, Dec. 1959, Dec. 1961. See note 68 *supra*.

122. See notes 60 and 61.

than lack of regulation. Western Airlines, for instance, takes the position that :

[Los Angeles-San Francisco] . . . has become the world's busiest air route because of certain distinctive peculiarities which pertain to no other route.

Most important is that the route links two large metropolitan areas within the same state. This enables intrastate carriers to operate without regulations by the CAB.

The two cities are 340 air miles apart. Nowhere are there two such large cities that far apart in the same state. Furthermore, the distance is just a bit too far for comfortable ground travel.

Los Angeles and San Francisco are located in the fastest growing part of the country. Historically, however, this development has been recent. These cities have grown to maturity essentially in the Air Age. Ground transportation between the two cities is not as well developed as in the East. There are, for example, only two main highways and one railroad.

Another unique feature of this market is that the two cities — though in the same state — are quite different. Each has its own tourist attractions, its own charm, and a different climate.

There is far greater difference between these two cities than between New York and Boston, which comprise the second busiest air route in the world.<sup>123</sup>

These assertions are incorrect, or at least very misleading.

That the two cities are 340 air miles apart is not unusual, unless their location within the same state has been crucial to market development. There are other city-pairs 340 air miles apart or more which exchange large amounts of air traffic which have not experienced the same growth. Location of the two cities within the same state may create certain commercial and social ties. But there is a similar if not quite as extensive community of interest among the cities of the Northeast corridor (Boston, New York, Philadelphia, and Washington) and between Chicago, Detroit, Cleveland and New York.

Whatever "distinctive peculiarities" may account for the heavy traffic between Los Angeles and San Francisco, that traffic need not move by air. Ground transportation, according to the article limited to two main highways and one railroad, is as adequate here as elsewhere. Between Chicago and Cleveland there is one main highway and one railroad, between Chicago and Pittsburgh one main highway and one railroad, between Chicago and New York one main highway and two passenger railroads, between New York and Washington one main highway and one railroad, and between New York and Boston one main highway and one railroad.

On the other hand, Western takes note of the fact that the intrastate carriers can operate this route without CAB regulation. This is an implicit admission that the stimulus of competition has been an important factor in market development. The spurts in development in 1949, 1959, and 1962 have coincided too closely with competitive innovation to be discounted as accidental.<sup>124</sup>

123. Flight Times, Sept.-Oct. 1964, pp. 1, 13-14.

124. Representatives of United and the California P.U.C. agreed that the services would not have been offered without the existence of the interstate carriers. Interview, Blaine Cooke, *supra* note 76. Interview, F. Holoboff, *supra* note 63.

## IV. A PROPOSAL

Regulation of United States air transportation is predicated upon erroneous economic assumptions and results in unnecessarily high fares, disguised inefficiencies (such as premature replacement of equipment) and a lack of genuinely diversified service. The CAB should draw a lesson for national regulation from the Los Angeles-San Francisco market and amend the present regulatory scheme so that all markets are freed from restrictive economic regulation. The result of such deregulation would be to introduce competitive pricing on much of the national air transportation system.

Competitive pricing is unlikely to appeal to those who benefit from the protection built into the present system. The trunklines, currently protected against any real risk of demise, would undoubtedly object that the result of their twenty-five years of hard work was being taken from them. The knowledge that at least \$400,000,000 has been given them in direct subsidy<sup>125</sup> as a reward for their efforts or that the opportunities for unfettered competition would be almost unlimited probably would not pacify them. Despite Western's doubling of its market share between 1961 and 1963 — a period during which its only important service change was the introduction of low-fare services — Western has been one of the most vociferous opponents of experimental fare reductions. And PSA, having benefited by the opportunity to enter the market free of artificial restraints, now supports legislation which would end that freedom.<sup>126</sup> The free market affords opportunities to entrepreneurs from which already established firms seek to protect themselves.

Present beneficiaries of internal subsidy would probably oppose deregulation. Of course, subsidized service could be continued, but in a deregulated system the burden would fall on the beneficiaries, national or local, rather than on economically unrelated consumers. Localities accustomed to having others pay for local benefits are unlikely to welcome the opportunity to carry the burden themselves.

Any attempted deregulation would no doubt be accompanied by the usual industry warnings of impaired safety.<sup>127</sup> California shows that an unregulated market is not inherently unsafe. PSA has never experienced a fatal accident. The most recent intrastate entrant, Trans California, experienced no safety problems during the two years it was in operation. The FAA will continue to

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125. AIRLINES 17. I have deliberately refrained from attempting the difficult task of estimating the amount of subsidy contained in trunkline service mail rates. Whatever the amount, it should be added to the figures given in the text. In addition, the airlines have been provided with enormous indirect subsidies in the form of airways and traffic control systems and federal subsidy to airports.

126. PSA's position was that it was merely trying to protect itself and the public from unscrupulous and ill-equipped operators. For this it depends upon the argument that certificates established by the new Act are certificates of fitness, and not attempts at adjudicating the economic need for the service proposed.

127. See note 17 *supra*.

enforce safety standards as prerequisites to entry and continued operation.<sup>128</sup> It can always raise the standards or expand its enforcement activities.

Competitive pricing could be introduced on present-day routes either simply by abandoning route restrictions on existing trunklines, or by allowing entry to any qualified applicant. In either case carriers would still be required to file tariffs and adhere to them. Changes would be made simply by notice. Adherence to tariffs would prevent chaos and ensure sufficient certainty to enable consumers to calculate costs conveniently. However, abandoning route restrictions by allowing existing trunklines to compete would be unnecessarily restrictive. One of the reasons for PSA's success is that it "specializes" in accommodating itself to the needs of a particular market. Such specialists might well establish themselves elsewhere if given the chance. Furthermore, in California many innovations and efficiencies have been generated by carriers trying to establish themselves in a market where other carriers already have competitive "identities." Low-fare service, better operational and passenger-handling techniques, and new marketing approaches have all been pioneered in California by the intrastate carriers. Similarly, in the national market, the non-scheduled airlines provided the impetus for the trunk carriers to initiate coach service. The established trunk lines resisted this innovation.

Moreover, the airspace is public property, restrictions on the use of which were initially imposed in response to fears of economic evils. Since examination of the Los Angeles-San Francisco market shows that these fears are unjustified, there is no reason why we need continue to deny the opportunity to serve the public to those prepared to risk capital to do so. It is neither wise political nor economic policy to mark out an area of activity as the preserve of a few corporations who have the good fortune to have been operating on May 14, 1938. If these corporations, with their vast experience and talent resources, are able to adapt to competition, they should find themselves better off for it — more flexible, free of government interference, and expanding rapidly as previously untapped markets are developed. If not, it is to the public's advantage that the operation of the air transportation system be placed in more capable hands.

Allowing *any* qualified applicant to operate on competitive routes would provide a maximum competitive impetus to the market. This approach would decentralize investment decisions, eliminate the possibility of collusive agreements between grandfather carriers, and reward entrepreneurial talent. Market composition would no longer be selected arbitrarily, and public air space would become a public resource.

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128. It has already delayed the entry of a new competitor in the San Francisco-Los Angeles market. This is California Airlines, which has been trying for over a year to raise financial resources to start operating Caravelle equipment from the San Francisco Bay Area to Southern California. To date, the FAA has not been satisfied as to the new line's financial stability. Telephone interview, Mr. R. Maus, President, California Airlines, December 30, 1964.

However, the political opposition from established carriers and subsidized communities which is certain to attend any attempted deregulation will most likely require a cautious CAB to adopt a more limited approach. But discretion is the better part of caution. If the CAB were to experiment by selecting one market to be deregulated provisionally, the established carriers might ensure the experiment's failure. They could price below cost, regarding the resulting loss as an investment, since the "failure" of the experiment would mean a return to protection and an opportunity to recoup.

Opening several markets at one time would make destructive tactics by the trunk carriers less likely, since the investment required would be greater and any attempt to compensate by requesting fare increases on their protected routes could be frustrated by an alert CAB. The difficulty with this approach is that the likelihood of the experiment proceeding without artificial distortion will increase as more traffic is affected, but so will the political opposition. The higher the rate of deregulation the greater the expected outcry from established carriers and "desubsidized" communities.

Perhaps the most politically viable alternative would be for the Board to select a limited number of new carriers to compete in high-density markets. Although this is not the most satisfactory alternative from an economic standpoint, the certification and subsequent performance of Trans Caribbean Airways in the New York-San Juan market demonstrates that such carriers, if properly selected, could dramatically effect existing fare levels and service patterns.<sup>129</sup> This approach would not produce the flexibility and self-regulation characteristic of a free market. Nor would it cure the present system's defect of requiring administrative determinations on matters which would be better left to the market.

Despite difficulties, deregulation, whether complete, partial, or even experimental, is worth trying. It would cost the public nothing and could point the way to a new era of mass travel. Even completely free entry would not lead to monopoly or cut-throat competition, but to a stable market configuration in which individual competitors would change relative market shares or even go out of business, but in which no more than a few carriers would operate at any one time. Free entry would not lead to oligopoly because entry costs are not

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129. Trans Caribbean, formerly an irregular carrier, was certificated by the Board in 1957. 26 C.A.B. 72. A temporary certificate was granted on the condition that the carrier develop a low fare service. Even before Trans Caribbean received its certificate, Pan American and Eastern (the then existing carriers on the route), lowered fares to the level of Trans Caribbean's proposed tariff. The market has grown rapidly, and Trans Caribbean has been a consistent force for low fare levels. Service at the "thrifty," or lowest, fare, constituted much less than half the New York-San Juan traffic in the two years before Trans Caribbean was certificated. Trans Caribbean's aggressive promotion of even lower fares, and the competitive responses forced on American and Eastern as a result, almost doubled traffic in six years. Over 90% of the traffic at the new level travelled at the lowest fare. Trans Caribbean Airways, Direct Exhibit before the Civil Aeronautics Board, United States-Caribbean-South America Investigation, Docket No. 12895, 1965, Exhibits TC-151, p. 1; TC-156, p. 1; TC-155, p. 1.

too high to discourage potential competitors<sup>130</sup> and the established firms would therefore be forced to keep fares low enough to avoid attracting new entrants. Subsidized service could be retained, eliminated, or modified.

Nothing prevents the Board from liberally construing the licensing provisions of the Act.<sup>131</sup> Nothing would "preserve the inherent advantages of air transportation"<sup>132</sup> so well as permitting its active development on the widest scale. Nothing could as effectively accomplish the "promotion, encouragement and development of civil aeronautics,"<sup>133</sup> as regulation which promoted high output and the prosperity of the most efficient. And nothing would as dramatically accomplish "the encouragement and development of an air transportation system properly adapted to the . . . needs of . . . the United States"<sup>134</sup> as a market operating to bring transportation within the reach of consumers who are today excluded. If the success of the Los Angeles-San Francisco market were duplicated nationally, the result would be a transportation system unique in the world. A nation in which everyone could aspire to a breadth of experience hitherto reserved for tramps and retired physicians would be a remarkable place, indeed.

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130. *CAVES, op. cit. supra* note 42 at 92.

131. 49 U.S.C. § 1371 (1958).

132. 49 U.S.C. § 1302(b) (1958).

133. 49 U.S.C. § 1302(f) (1958).

134. 49 U.S.C. § 1302(a) (1958).

†LL.B. 1965, Yale University. The author wishes to thank Dean Eugene V. Rostow and the Yale Law School for financing the travel necessary to research this Comment. He wishes also to thank for their cooperation Pacific Southwest Airlines, United Air Lines, Western Air Lines, the California Public Utilities Commission, and the Civil Aeronautics Board.