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REASONABLE OPERATING RATIO VERSUS FAIR RATE OF RETURN

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A great deal of rate regulation is based on a determination of the amount of revenue that a carrier ought to earn or that a given service ought to produce. It is, in essence, revenue regulation, and may be described as rate regulation only superficially, because rates are fixed or permitted at a level that will produce the amount of revenue considered adequate. In the case of airlines, this is notably true in the determination of mail compensation, which is fixed at a level that will produce the amount of revenue considered appropriate for the mail service. It is true also of mail payment that includes an element of subsidy, for the rate of such payment is intended to bring total revenue to an adequate level.

In the future, the problem of adequate-revenue determination may arise with increasing frequency in connection with commercial services and with the entire operation of even a nonsubsidized airline or group of airlines. Although, in the opinion of the present writer, the CAB ought to be reluctant, for at least several years to come, to place ceilings on air carrier rates for commercial services, the possibility that the Board will think otherwise cannot be dismissed. And in any event the problem will persist in connection with mail payments. Accordingly, Captain Rickenbacker's proposal that reasonable operating ratio be used as a revenue yardstick and that the fair-rate-of-return method be discarded, requires careful appraisal.

Operating Ratio and Profit

First of all, Captain Rickenbacker's proposal requires definition; for, in spite of the terms in which he presented it, he has not proposed a method of measuring the adequacy of airline profits. Indeed, profit does not enter into the concept or calculation of operating ratio. For carrier rate-making purposes, this ratio is simply the percent of operating revenue represented by operating expense. As explained by the Interstate Commerce Commission in connection with motor-carrier rate regulation, the expense used in determining the ratio "includes depreciation charges, operating rents, and taxes assignable to motor-


2 In public-utility economic analysis, operating expense less depreciation, or operating expense (including depreciation) plus taxes, is used as the dividend in the operating ratio; in the latter case the ratio is sometimes called "all-expense operating ratio." The divisor, however, is always operating revenue.
carrier operations, such as gasoline taxes, social security taxes, registration fees, and similar items." The Commission goes on to state that it does not include "interest on debt, . . . or income or excess-profits taxes, State or Federal."³

It will be noted that profit does enter into the picture. Nor can profit be derived by use of the factors (without additional information) involved in the ratio. The remainder that can be derived from these factors, i.e., revenue less expense, is not profit; it is, roughly, the amount available for interest, income taxes, and profit.

To say that an operating ratio is too high or too low is to say that revenue is inadequate or unnecessarily large in proportion to expense. The usual implication is that rates ought to be increased in the former case and decreased in the latter. Profit will of course be affected, but the operating ratio is in no respect a yardstick of profit. Indeed, strictly speaking, it is not even a yardstick of return to investors; for return (i.e., interest plus profit) is not among the factors used and cannot be derived from them. Even if operating ratio did indicate the return to investors, it would not indicate the ratio of return to the number of dollars by which they, as investors, measure its adequacy, i.e., the investment on which they are seeking to earn a return. This ratio, of course, is the "rate of return," which, by the orthodox concept of airline rate regulation, is to be kept at a fair and reasonable level.

**Significance of Operating Ratio**

Accordingly, operating ratio, unlike rate of return, does not show whether investors are earning too much or too little. What it does indicate, or help to indicate, is the answer to this question: Does revenue exceed expense by a proportion sufficiently high to minimize the possibility that the excess will be eliminated by an adverse change in the amount of expense or revenue? Captain Rickenbacker points out, and properly, that a high operating ratio creates danger of such elimination. Therefore the operating ratio should be kept reasonably low even if an incidental effect is to give investors an unreasonably high, more-than-fair rate of return on their investment.

This can be made clear if we assume that, in a given case, rates just high enough to produce revenue sufficient to keep the operating ratio reasonably low would necessarily produce a rate of return higher than otherwise necessary to attract capital. (The cost of capital is commonly considered the principal criterion of fair rate of return.) For example, let us suppose that an operating ratio of 93% is found to be the highest safe ratio; that rates are fixed or permitted at a level that will realize this ratio; that 8% is a sufficiently high rate of return on investment to attract capital; and that the rates fixed to realize an operating ratio of 93% will produce a rate of return of 10%. Although the revenue is higher than necessary to maintain the carrier's ability to attract capital, one may argue that it should not be reduced; for, if it were reduced,

³Increased Common Carrier Truck Rates in the East, 42 M.C.C. 683, 647 (1943).
the operating ratio would be above 93% and would therefore be too high. The possible consequences of an excessively high operating ratio are consequences associated with the danger of an operating loss, especially pressure on an airline to discontinue some of its services or to skimp on quality of service. These are obviously inconsistent with the policy and purposes of the Civil Aeronautics Act.\(^4\)

Consistent adherence by the CAB to the policy of keeping airlines' operating ratios reasonably low might tend somewhat to reduce the prospective rate of return that investors would demand of airlines. Nevertheless, regulation of rate level through the operating ratio would not necessarily be directed primarily to maintenance of an airline's ability to attract capital. It is quite possible, indeed, that an operating ratio sufficiently low to minimize the possibility of loss, but no lower, would involve revenue insufficient to produce a return on investment at a rate attractive to suppliers of capital. In such a case, one of the purposes of government regulation — to maintain the investment status of common carriers and thus to facilitate desirable expansion and equipment purchases — would be thwarted. Therefore the customary fair-rate-of-return method of fixing rate level would have to be relied upon. By this method, as we have intimated, rates are fixed at a level that will produce a percent of return on investment sufficiently high to permit the airlines to compete favorably with other buyers of capital.

In short, revenue must be high enough (1) to lead to safe and adequate service and (2) to maintain the carrier's ability to attract capital when necessary. The two are not wholly independent of each other, but they are nevertheless distinct. Use of operating ratio as a revenue yardstick tends to assure attainment of the former goal, and use of the fair-rate-of-return standard tends to assure attainment of the latter goal.

Captain Rickenbacker justifies the use of operating ratio partly on the ground that rates of return "traditional in the public-utility field" might result in "a dangerously narrow margin of safety."\(^5\) The premise is true, but it is not a good reason for wholly abandoning fair rate of return. This rate of return, if really fair to the airline industry, would be based on the cost of capital not to public utilities but to industries of economic characteristics similar to those of the airline industry. In any event, there is no need to rely exclusively on fair rate of return. The basic error lies in the assumption that use of reasonable operating ratio and use of fair rate of return are mutually exclusive alternatives.

**Analogy to Surface Transportation**

So far as either the fair-rate-of-return or the reasonable-operating-ratio method can be said to be used in railroad rate regulation, it is the former that is used. This is primarily because the relative contri-
bution of capital to the production of railroad service is extremely large. In that industry, net investment approximates two-and-a-half times the amount of annual revenue. Thus, at a rate of return of 6% the return would account for about 15 cents of the revenue dollar. Because of the indicated quantitative importance of capital to the production of railroad service and revenue, a prime concern in railroad regulation has naturally been to fix rates high enough to satisfy the demands of suppliers of capital.

Furthermore, even a modest rate of return on investment will provide an operating ratio far below the danger point, so that rate of return and the attraction of capital become the critical elements; if the criterion that they represent is satisfied, the problem of reasonably low operating ratio is automatically taken care of. For example, in the case of a 6% rate of return, an operating ratio far below 85% will be achieved. In brief, emphasis on or even exclusive use of the fair-rate-of-return method is justified by the highly capitalistic nature of railroads and by the consequent fact that this method will assure a reasonably low operating ratio and will thus attain the objectives of the reasonable-operating-ratio method without actual use of this method.

In the case of motor carriers, the economic facts are exactly the contrary, and the Interstate Commerce Commission has therefore adopted the reasonable-operating-ratio method in regulating the rates of this industry. Capital plays a relatively small part in the production of motor-carrier service and revenue. The ratio of net investment to annual revenue often runs as low as one to four. Therefore a rate of return as high as 10% might result in a return of 2.5 cents per revenue dollar and (very likely) an operating ratio of about 95%. Accordingly, neither of the two reasons for use of the fair-rate-of-return method in the railroad industry applies to the motor-carrier industry; for in the latter the investment plays a relatively minor role, and a fair rate of return on investment might result in a dangerously high operating ratio. At the same time, a reasonably low operating ratio — the Interstate Commerce Commission generally thinks in terms of 93% — would rarely result in a seriously inadequate return on capital; for, out of the 7 cents per dollar of revenue available for taxes and return on investment, enough must be left after taxes to pay a return on an investment of only about 25 cents. Assuming that half of the 7 cents goes to taxes, enough will remain to provide a rate of return of 14%. It follows that rate regulation of motor carriers based exclusively on operating ratio will almost inevitably satisfy also the requirements of the fair-rate-of-return criterion.

With respect to the relationship of net investment to revenue, and therefore with respect to the operating ratio that is likely to result from a given rate of return, airlines occupy an intermediate position, although this position is considerably closer to that of motor carriers than to the position of railroads. Net airline investment, for various airlines at various times, has run close to one-half of annual revenue.
Assuming that income taxes account for about 50% of the amount otherwise available as return, an airline operating ratio of 93% might result in a rate of return of about 7% — too close to the borderline for full reliance on a reasonable operating ratio as a means of assuring a fair rate of return and reasonable ability to attract additional investment. And, of course, the same is true in reverse; a fair rate of return would offer insufficient assurance of a reasonably low operating ratio.

In short, it is quite possible, in the case of the airlines, that exclusive use of either the operating-ratio method or the fair-rate-of-return method would endanger the achievement of the objectives associated with the other.

CONCLUSION

As effects adverse to the public interest may flow from an excessively high operating ratio, and as somewhat different adverse effects may result from an inadequate rate of return on investment, airline revenue ought to be high enough to satisfy both standards, i.e., to satisfy in each case the more exacting of the two standards. Because the use of operating ratio is less costly and less time-consuming, and because airlines are relatively close, economically, to motor carriers (in whose regulation, for reasons above indicated, the operating-ratio method is used), the operating-ratio method may well be adopted as the primary yardstick, subject to correction when there is reason to believe that the minimum revenue required under that standard would result in an inadequate rate of return on investment.