Valuable Operating Rights in a "Competitive" Industry

A Paradox of Regulated Trucking

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ADAM SMITH wrote in *The Wealth of Nations* that "every individual necessarily labours to render the annual revenue of the society as great as he can . . . and he is in this, as in many cases, led by an invisible hand to promote an end which was no part of his intention." In other words, the public interest is best served through the pursuit of private interest. This apparent paradox is quickly resolved when we identify the "invisible hand" as the competitive market—an arrangement that permits the individual to pursue his own self-interest without penalizing other members of society. Indeed, many economists have devoted their lives to examining the intricacies of "Smith's paradox" in complex situations.

When a benign government seeks to serve the public interest by substituting its visible, frequently coercive, and often selective hand for Smith's invisible, volitional, and impersonal hand, new paradoxes appear. Unlike Smith's, some of these cannot be rationally resolved and are, therefore, absurdities. Our subject is one of these.

Consider the following. The trucking industry is said to be earning no more than a "competitive" return on its assets, but entrepreneurs are paying large sums for the right to operate as truckers in this "competitive" market. That is, they spend millions of dollars each year to purchase existing operating rights from other truckers and millions more to obtain new operating rights from the Interstate Commerce Commission (ICC). If returns to the transportation-related assets were in fact competitive, truckers would not pay such sums for operating rights, because this would force their rate of return below the competitive level—below what these assets could earn elsewhere.

Since the ICC controls the supply of operating rights (also called "operating authorities" or "operating certificates"), the question that arises is whether the commission creates an artificial scarcity of supply or in some other way permits the industry to earn excessive returns. If it does, we no longer have a paradox—just poor or unnecessary regulation.

The commission argues that because truckers are not permitted to include the value of their operating rights in the assets on which they are entitled to a return, the existence of these rights does not lead to higher truck rates. The commission also argues that it does not significantly limit the supply of operating rights, since it approves over 80 percent of the applications it receives. If rights are easy to acquire and if truck rates are set so that the industry earns a "competitive" return on its transportation-related assets, the paradox reappears, and one is left wondering about the business sense of those who pay huge sums for these rights.

Background

At this point we should note the historical origins of the apparent contradiction we have identified. The basic structure of trucking regulation was established by the Motor Carrier

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Act of 1935. At that time the economy was in the throes of the Great Depression, and there grew a demand that industry be protected from the evils of "destructive competition." Conditions seemed particularly bad in the trucking industry. The business was an easy one for enterprising individuals to enter and provided an alternative to industrial unemployment. With considerable new entry occurring, truck rates declined as hard-pressed truck operators struggled to compete for customers.

The gains to consumers from lower trucking rates did not persuade the policy-makers of that time. Instead, they accepted the argument that equipment was being inadequately maintained, that driving times had lengthened, and that "unethical" operators were creating unsafe conditions. The railroads and large trucking firms, whose established markets were being threatened, were joined by large shippers and the ICC, which was concerned about the viability of "common carriage," in demanding an extension of regulation to the trucking industry. The principal purposes of regulating the truckers were to "protect" the common-carrier system from competition by treating motor carriers like railroads and to stabilize prices and capacity in trucking.

The essential techniques of railroad regulation—a system designed to control monopoly—were applied to the diverse and atomistic trucking industry in an environment characterized not by monopoly but by intense rivalry. First, with some exceptions, the ICC was granted power to approve and suspend rates charged by for-hire motor carriers. In determining just and reasonable rates the commission did not, as is usually the case in public utility regulation, directly establish a fair rate of return on investment. It considered a number of factors, but relied most heavily on the operating ratio (the ratio of operating costs to revenues) as a criterion for evaluating rate increases. This type of regulation, along with the antitrust immunity subsequently granted to motor-carrier rate bureaus (organizations used by truckers to establish rates through joint "agreement"), has led to inflexible prices and the virtual elimination of price competition among truckers.

Second, the ICC was granted control over entry into the industry. Common carriers (those which provide services to the general public) must obtain from the ICC "certificates of public convenience and necessity" to transport particular classes of goods over particular routes.[1] The "need" for a new certificate is easily contested by carriers already operating in the particular transportation market. These certificates—or rights—contain various restrictions, including specification of routes, gateway restrictions (that is, restrictions on the routes a carrier can use when passing from the territory of one ratemaking bureau to that of another), limitations that increase empty backhauls, and restrictions on particular commodities hauled. As a result, route structures are often circuitous, and route and service offerings quite inflexible to changes in the demand for service. Some of these inefficiencies have been relieved by ICC action and by the carriers themselves as larger firms have bought certificates from smaller firms in order to make their routes more efficient. But the problem is far from resolved.

What Are Operating Rights Worth?

According to a 1974 report of the American Trucking Associations (ATA), "Recent acquisitions in the motor carrier industry indicate that amounts paid for operating authorities are approximately 15% to 20% of the annual revenue produced by those authorities." Indeed, the report describes operating rights as the industry's "most important asset."

Operating rights are issued only if the proposed service "is or will be required by the present or future public convenience and necessity" (49 U.S. Code, section 307). The commission seldom grants an application that threatens the financial health of existing carriers. Regulatory policy thus supports the survival of existing firms and significantly reduces entrepreneurial risk. The ICC thinks this is desirable because it leads to "stability" and lower borrowing rates for truckers. Bankers tend to view operating rights as assets that can be sold in the event of bankruptcy, as protection from harsh competition, and as representing a preferential claim on new business.

The commission grants over 4,000 operating rights a year, denying only a small portion

[1]Most of the operating rights in existence today arose under the so-called grandfather clause of the Motor Carrier Act. Congress made special provision to protect the interests of motor carriers in bona fide operations prior to the passage of the act by not requiring these carriers to prove public need in order to continue in operation.

of those that are requested. In view of this, why are existing operating rights purchased for huge sums? Why do not truckers simply apply directly to the commission and receive their rights for no more than the expense of hiring an attorney? The answer is that if they really intend to compete with existing firms, they will necessarily "injure" those firms. Doubtless, many truckers who want rights are advised by their attorneys not to apply because they cannot meet the "no injury" standard.[2] Beyond these basic regulatory obstacles, the application procedure is lengthy and costly, involving legal and other costs far in excess of those available to most would-be entrepreneurs.

The fact that the commission acts favorably on most applications does not mean that entry is easy. The new operating rights that are granted are generally specific and narrow with respect to the origins and destinations of traffic and the commodities to be carried. They are granted, for example, when a new plant opens (and may limit the carrier to serving just that plant) or when they are simple extensions of existing rights not contested by other truckers. Entry that creates direct, new competition is rare, notwithstanding the leniency claimed by the ICC. Thus entrepreneurs wishing to set up trucking businesses of any size or to extend their operations substantially usually must purchase expensive operating rights. (These purchases must be approved by the ICC, but this is a routine procedure and imposes no impediment to such transactions.)

Over the ten-year period, 1963 through 1972, total investment in operating rights shown on the balance sheets of Class I common carriers of general freight grew from about $65 million to about $300 million according to the ATA—or at an annual compounded rate of approximately 16 percent. The balance sheet increase resulted primarily from the sale of these rights at prices above book value, meaning that the truckers who bought the rights carry them on their books at higher values than the truckers who sold them. Since book values increase only when rights are sold, existing rights not recently traded are seriously undervalued on the books. Thus, the figure of about $300 million for year-end 1972 grossly understates their market value. For example, Associated Transport, Inc., carried operating rights on its balance sheet at $976,000 but sold them in 1976 at public auction for $20.6 million. The same year, Eastern Freightway, Inc., sold rights carried on its books at $450,000 for about $3.8 million.

The ICC recently released information on forty-three transactions in operating rights from 1967 through 1971 (see table). These transactions involved no assets beyond the operating right. The forty-three rights were purchased originally for a total of $776,800 and were later sold for a total of $3,844,100. The average length of time they were held is 10.1 years, so that their aggregate value increased at a compounded annual rate of 17 percent. Adjusting the sales figure to constant (1972) dollars reduces the annual increase to 13 percent. The "average" trucking company (as represented by the forty-three transactions) thus earned a "capital gain" of 13 percent a year on its operating right (in real terms), plus an after-tax return on its investment in other assets of 9 to 17 percent (the 1970-1975 range).[3] The after-tax return on investment of 9 to 17 percent exceeds that earned by public utilities and compares quite favorably with results in unregulated markets. The higher return from the sale of operating rights, of course, raises the truckers' overall return. Given the degree of protection from competition that is inherent in a regulated industry and the low risk of failure, this return—putting it mildly—seems high.

It is interesting to note that the rate of return earned on the operating rights covered in the table (that is, the rate of increase in their value) declined with the length of time the rights were held. One possible reason is that as a route structure grows older it becomes less efficient because—owing to ICC restrictions—it cannot be adjusted to changes in transportation demand. Another is that competition develops along older routes and reduces profits—but, given the problems of entry, this seems unlikely.

[2] Competition typically involves the provision of a better service or lower prices than are provided by the existing firm and will thus lead to a weakening of the existing firm's financial condition. A potential entrant who would make consumers better off thus would have difficulty meeting ICC standards.

[3] After-tax returns on investment of Class I motor carriers ranged from a low of 9.0 percent in 1970 to a high of 17.5 percent in 1972, and averaged 13.27 percent in 1975 (ICC annual reports, 1971-1976). According to *Business Week* (November 15, 1976), the average rate of return on equity for the year ending September 30, 1976, was 13.7 percent for the all-industry composite and 20.9 percent for the truck companies included in the survey.

RATES OF RETURN EARNED ON 43 TRANSACTIONS IN OPERATING RIGHTS, 1967-1971

Years Rights Held	Purchase Price (000)	Sale Price (000)	Compound Annual Rates of Return: Current dollars	Compound Annual Rates of Return: 1972 dollars
1	3.0	23.0	667%	620%
1	2.5	17.0	580	576
1	15.3	100.0	554	554
1	29.4	151.6	416	390
1	3.0	15.0	400	329
1	17.5	50.0	186	186
1	16.8	22.5	34	27
1	30.0	31.9	6	2
1	10.0	10.0	0	0
2	20.2	50.8	58	51
2	25.6	20.0	−12	−14
3	10.0	40.0	58	51
3	18.0	50.0	40	34
4	10.0	400.0	151	138
5	1.1	40.0	105	98
7	9.8	265.2	60	56
7	8.8	80.0	37	33
7	102.7	349.4	19	16
7	10.8	35.0	18	14
7	26.0	65.0	13	9
7	38.0	38.0	0	0
7	5.0	1.0	−20	−23
9	25.3	50.0	8	4
10	25.8	274.2	27	24
10	13.0	55.0	16	12
11	11.0	350.0	37	33
11	2.3	10.0	14	11
11	10.0	25.0	8	5
12	15.0	15.0	0	1
15	32.8	175.0	12	9
16	2.8	45.0	19	16
16	13.5	85.0	12	10
17	2.5	30.0	16	13
17	105.0	113.5	0	−2
18	5.5	340.0	63	25
18	4.1	23.0	10	7
20	22.0	90.0	7	4
22	2.5	20.0	10	7
22	9.4	59.0	9	6
22	24.6	75.0	5	2
24	16.0	100.0	8	5
28	6.2	50.0	8	4
29	14.0	14.0	0	−4
Average life: 10.1 years				
Totals				
Current dollars:	776.8	3,844.1	17	
Constant (1972) dollars:	1,163.1	4,181.4		13
Mean percent return (unweighted), 1972 dollars:				78
1 year				298
0-5 years*				203
5-10 years				15
10-20 years				11
Over 20 years				3

*Includes one-year rights.
Source: Data provided by Interstate Commerce Commission.

Since the sample of forty-three transactions is small and includes only operating rights that were actually sold, we should not place a great deal of confidence in the precise results. Yet, the results do conform generally to the ATA figures cited earlier and are conservative compared with some recent unpublished estimates made by Thomas G. Moore.[4]

The ICC is aware that operating rights increase in value over time. A February 1972 statement issued to motor carriers by the ICC's Bureau of Accounts states that "in a preponderance of cases where carrier operating rights are acquired through a business combination we are of the opinion that the value of those rights tends to increase rather than diminish. However, we are undecided as to the underlying cause of the increase." This conclusion seems incredible and suggests that the commission has made little effort to evaluate this crucial asset. There must be some reason why the operating rights increase in value over time, and that reason may be related to failures in the regulatory system.

Why Do Operating Rights Increase in Value?

The value of an operating right is the present value of profits in excess of those needed to maintain investment in the industry. In a genuinely competitive industry, the rate of return earned on investment is equal to that required to maintain and attract capital. Economists refer to this rate of return as the "cost of capital." It happens that in the regulated trucking industry a "gap" has been created between the actual return and the cost of capital. Such a "gap" can be created by permitting excessive rates and may be widened if control of entry creates some monopoly power. If this "gap" is expected to persist, the excessive return will become capitalized, giving value to the oper-

[4]When rights are purchased, carriers are required to file a "giving effect" statement with the ICC. This statement includes an estimate of the profit that would have been earned had the rights been owned in the most recent period. Moore examined ten such statements and found that the expected return on the investment in rights was 35 percent. The "giving effect" statement probably gives undue influence to near-term factors so that Moore's figure may be related to the returns on the rights in our sample that have been held a short period of time. (Thomas G. Moore, "Beneficiaries of Trucking Regulation," preliminary discussion paper, June 21, 1976, p. 21.)

ating right. A continuous rise in the value of an operating right suggests that the present value of the stream of excess profits becomes successively higher each year *and that this had not been predicted* (that is, not capitalized).

What has caused this constant reevaluation upward in the expected stream of excess profits? There is no obvious answer, but let us suggest two possible explanations: (1) rates of return may *continuously* exceed those required to maintain firms in the industry, and (2) inflexible route structures may become inefficient over time, leading to a market for the trading of operating rights among firms seeking to improve their route structures.

Effects of Excessive Rates of Return. Consider the first possibility. Suppose that an entrepreneur is willing to invest in the trucking business at an after-tax return on total investment of 10 percent, but that the ICC views 12 percent as the appropriate return and regulates the trucker accordingly.

Suppose now that the entrepreneur is granted an operating right, invests $80,000, and reinvests the profits. In the first year, the trucker will earn a profit of $9,600 (12 percent) on the original $80,000 investment, including $1,600 in excess of the 10 percent minimum he or she is willing to accept. This excess return will be capitalized, and the operating right will now be valued at $16,000 ($1,600 divided by .10). If the earnings of $9,600 are reinvested, the trucker will have physical assets of $89,600 and, the next year, will earn $10,752 on this amount, or $1,792 more than could have been earned at a 10 percent rate of return. The value of the operating right thus becomes $17,920 (that is, $1,792 divided by .10). The percentage growth in the value of the operating right is, under our assumptions, precisely equal to the percentage growth in assets invested. Thus, the value of operating authorities grows in direct proportion to the growth of the industry.

This scenario may help to explain the continuous compounded rate of growth in the value of the operating right. As indicated, the original value of the operating right is created by the capitalized value of an expected excess return, and the growth in value is created by the continuous earning of excess returns on new assets and by the inclusion of these excess earnings in the value of the right.[5] A difficulty here is that if it were known that assets would grow, the "excess" associated with new assets would also be capitalized, the compounding process would not occur, and the value of operating rights would stabilize. But of course, though growth can be predicted, it cannot be known with certainty.

The analysis suggests that the return to regulated trucking is excessive, so that we should expect individuals to attempt to enter the industry and "undercut" existing truckers. Since entry is limited, this should lead to illicit operations and imaginative schemes for entering the industry without ICC authority. This, in fact, seems to be the case. For example, agricultural cooperatives are exempt from trucking regulation provided that they haul agricultural products. A major problem for the ICC has been to prevent the creation of "sham" cooperatives that illegally transport commodities at rates lower than those established by regulation. There are numerous examples of such schemes to enter the industry without authority. To me, this means that regulated rates are excessive and fortifies the analysis set forth here.

Effects of Route Inflexibility. As we have noted, truckers must operate within the limits of their operating rights and cannot easily adjust their route structures as the pattern of demand for trucking changes. Over time, these "frozen" structures lose earning capacity. Inefficiencies appear in the form of increased circuitousness, interlining, and underutilization. Rates of return may decline and operating ratios may increase, leading to increases in costs and to justification for rate increases.

The trucker who wishes to expand or rationalize an outmoded route structure may be unable to do so if that would infringe on routes served by others. So, instead, he will purchase a right from another trucker and perhaps sell a

[5] It could be argued that the payment for an operating right is a payment for "goodwill." There may be some truth in this view. To the extent that the concept of goodwill refers to monopoly advantages (location) and the return on a protected investment, it includes some of the elements noted above. But as an explanation of why operating rights have value and why this value grows, it is not a significant factor. In the view of analysts at the Chase Manhattan Bank: "[Operating rights] are an asset with unique and truly identifiable value which is unlike patents, goodwill or those values rising out of a merger or purchase, which may diminish in time." (Chase Manhattan Bank, *1976 Financial Analysis of the Motor Carrier Industry,* p. 10.)

portion of his own right to a third trucker who has similar problems. This trading in rights—if rational—will almost always increase trucking efficiency because the purchaser has a more profitable use for the right than the seller. The payments are thus, in part, payments to overcome the complex web of inefficiencies created by detailed ICC regulation of routes, commodities, and services. One trucker must pay another in order to serve the public interest.

There are thousands of operating rights, each of which fits into the jigsaw puzzle that truckers put together at considerable cost in the form of payments for the rights, as well as for legal fees and other items. After a while, transportation demands shift, the puzzle falls apart, and another must be constructed. This is a costly game, one that would not have to be played if there were more flexibility at the regulatory level. And, of course, it is the shipper, and ultimately the consumer, who pays the costs of the game.

It has been noted that the annual compounded rate at which an operating right grows in value diminishes with the length of time that the right has been held. This relationship suggests that the value of "old" rights reflects the decreased efficiency that occurs as frozen route structures become less suited to market demand. On a slightly different point, the behavior of the values of operating rights held for a short period of time suggests the possibility of sophisticated short-term speculation, a possibility that requires further examination.

Conclusion

The evidence we have examined suggests that the cost of shipping goods by regulated motor carriers is excessive, that truckers who are granted new operating rights receive large windfall profits, that those who purchase existing rights receive excess returns on them over time, and that large payments must be made to overcome route inflexibilities.

The value of an operating right is the capitalized value of the "excessive" returns it enables its owner to earn. In a sense, high truck rates (or, perhaps more accurately, regulation-induced monopoly power) lead to high values for operating rights, rather than operating rights creating the high rates or monopoly power. So long as the rate of return earned by regulated truckers consistently exceeds that which would exist in a competitive market, operating rights will retain value and may rise in value over time. Though rate-of-return considerations have been emphasized here, it is important to bear in mind that route inflexibility is a significant contributor to higher costs.

A recent task force report prepared by the staff of the ICC (see page 41, this issue, for a brief summary) makes special note of the high price of operating rights. The thrust of its brief discussion is that the high prices paid for rights look bad and that, perhaps, it would be desirable to put a "cap" on these prices or restrict in some manner the transfer of rights. One could infer that the ICC staff is, indeed, confused by the paradox we are trying to unravel. Placing a cap on sale prices or restricting the transfer of operating rights would lock operators into even greater inflexibility and result in ever higher costs of motor-carrier transportation.

Curiously, the commission seems not to have recognized that the aggregate value of operating rights is an excellent measure of the efficiency of its regulation. If operating rights command high prices, this is an indication that the commission is artificially constraining service, raising costs to consumers, and creating excess profits for owners of the rights. There should be little doubt that the paradox of valuable operating rights in a "competitive" industry can be explained by the existence of regulation that permits little real competition. ■

Selected References

Data on the value of operating rights and a discussion of the ICC's Bureau of Accounts memo to motor carriers can be found in American Trucking Associations, *Accounting for Motor Carrier Operating Rights* (1974).

For different analytical viewpoints on the effects of trucking regulation, see Thomas G. Moore, "Deregulating Surface Freight Transportation," in Almarin Phillips, ed., *Promoting Competition in Regulated Markets* (Washington, D.C.: Brookings Institution, 1975), the papers presented in Paul W. MacAvoy and John W. Snow, eds., *Regulation of Pricing and Entry in Truck Transportation,* Ford Administration Papers on Regulatory Reform (Washington, D.C.: American Enterprise Institute, 1977), and the first five articles summarized in Readings, this issue.