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# The Return Earned by Private Industries and Public Utilities\*

BY RAYMOND EDWARD NORTH

## I

Despite the ever growing complexity of business and commercial intercourse, with its seeming confusion, the profit motive remains the principal stimulus. Men engage their capital and ability in industry primarily with the hope of pecuniary reward, and if their quest is unsuccessful they either voluntarily withdraw or else that which they have is taken from them. If successful, they are entitled to the fruits of their labor. The right to the enjoyment of private property is guaranteed in the federal constitution and forms a cornerstone in our social structure. All industry, whatever its reaction to prosperity or adversity, is concerned first, last and always with the return it can expect to earn upon the value of the investment which has been engaged in the business.

One group of the privately owned industries has become known as the public-utility group because of special characteristics which are peculiar to that industry. A utility is engaged in producing and rendering an "essential service," but that alone does not distinguish it from a so-called industrial. The steel manufacturer, the coal-mining operator, the furniture manufacturer, the owner of a patent for a universally required invention, the clothing manufacturer and the building contractor are all producers of things essentially necessary. Yet their products are not said to be "effected with a public interest" as in the case of utilities. The telephone, water, gas, transportation and electric companies have the additional and distinguishing characteristic of exercising a monopoly within a given territory. The residents of a modern city have no choice from whom they shall take electric or telephone service. On the other hand, while clothing may be just as essential as gas for the evening meal, each person has the widest latitude in the choice of the shop he will patronize, the price he cares to pay and the style of clothing he thinks will become him. If there is to be one utility company, rendering one service to one

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group of customers, it is only equitable that one price be charged to all, that there be no discrimination between customers, and that whatever the price may be, it be not excessive or unreasonable. When there is also considered the fact that these public-service companies occupy, use and enjoy the public highways and have the right of eminent domain, the need for some method of regulation as a guard against undue self interest is clearly apparent. So it is, then, that while the purpose of the industrial and the utility is identical, i. e., to supply something desired by people, for a return over and above cost, the method of controlling the return to each is entirely different.

The history of public-service enterprises roughly covers a period of one hundred years. The gas industry is one of the oldest of the group, dating as it does in America from the opening of the nineteenth century. The telephone was yet an experiment when Alexander Graham Bell exhibited it at the Centennial celebration in Philadelphia in 1876. Edison's pioneering work in the electrical industry was becoming fruitful at the same time, for in 1882 the first central station was built in the city of New York. Steam transportation had been proven practicable as early as the third decade of the nineteenth century. The early utility enterprises were treated as any new industrial enterprise would be treated today. That is to say the field was open to all comers for such exploitation as they cared to undertake. A general struggle for existence ensued, generally to the dissatisfaction of the public. Discrimination was prevalent. Rate wars succeeded one another in a regular order. The dominant company in each territory either forced the weaker companies out of business or bought them out. And at all times there was a constant danger that the streets would be torn up by some new competitor, often with the purpose of forcing the existing companies to remove the threat at a handsome profit to the promoter. After a protracted period of such unrestricted competition, detrimental to the public and to the utilities themselves, one company generally survived in each locality. The practice of commission regulation, delegated with authority by the state legislature, was then evolved. This development came with the twentieth century as an acceptable contribution to social progress and commercial growth. Utility regulation has been adequately tested during the last fifteen or twenty years, and where undesirable influences have been absent the results have been salutary.

II

Although industrial enterprises are ostensibly uncontrolled, they are nevertheless regulated through the operation of natural laws and the free interplay of economic forces. The return to one such industry is not limited as to amount, but it is directly dependent upon managerial skill and ability. Competition serves to fix the selling price for similar ventures while the skill with which a particular company is operated largely determines the cost of production and hence the spread between the two—or the return to that company. Capital and ability naturally tend to flow into the most profitable fields. As the influx continues, competition becomes keener, a larger supply is created and unless the demand can likewise be enlarged, prices will recede. An industrial will gain or lose, probably succeed or fail, as it can create and sustain a demand for its product and supply that demand at a cost under the selling price. The successful company is therefore the one which can maintain or reduce the cost of production at or below the average cost for its class. If the industry continues to afford returns higher than other industries with comparable risks, there will be an accession of new competitors to the ranks. Prices will gradually become lower, approaching the average cost of production as the limit. The spread between cost and selling price is gradually lessened as the field is developed. The marginal producer is then the first to be forced out. He must offer his goods at the current quotation in order to sell them at all, but he finds that his higher production costs make his continued operations unprofitable. He therefore quits, either voluntarily or involuntarily. As the influx of competitors continues or the available supply exceeds the present demand the less efficient producers will continue to be eliminated and only the more efficient will survive. Later, if a greater demand develops or if capital is withdrawn from the industry, so that the return to those remaining would again become larger than to other industries attended by similar risks, accessions to the ranks will begin and the cycle will be repeated. It can be seen that the supply-and-demand law regulates selling prices, but that cost of production determines the return to the industrial and its success. This is another way of saying that the return an industrial gets depends upon the skill and ability of the management. If the cost for a company is equal to the average for its class, the return will be an average

return. If the cost is below the average, the company so situated will enjoy a higher return. There is no limit to what it can earn.

An increase in business and profits is more surely obtained by lessening the cost of production than by increasing the selling price. An increase in the selling price may produce, not more income, but less income. The management of an industrial should prefer to sell one thousand units at a profit of ten cents rather than five hundred units at a profit of fifteen or eighteen cents. Suppose that an increase in the output of five hundred units would throw a greater supply on the market than the normal demand would sustain. In that event a new demand must be stimulated or else intensive sales efforts must be used to capture the customers of competing companies. In either event the most satisfactory way to induce the additional purchases is to reduce the sales price. But if the added business is to be profitable, or, better, if the whole volume is to be proportionally more profitable, the cost of production must also be reduced. Often the very fact of the greater output will alone reduce costs, since the indirect charges, such as supervision, depreciation, insurance, taxes and repairs may not increase as the direct charges for material and labor do. The success of the United States Steel Company or the Ford Motor Company and the satisfactory return which each earns are due largely to their low operating costs, made possible by mass production and able management. In the final analysis then, the question whether or not an industrial can earn a return greater than the average for its class is determined by whether or not it can produce the commodity or service at a cost lower than the average. The management of private industry has a great inducement (if, indeed, it is not a compelling force) to reduce the cost of production as the most effective means of increasing profit. And with the benefit of greater profit to the producer, there invariably goes the benefit of lower prices to the consumer. Prices are not fixed arbitrarily at this or that level, all that has been claimed about combinations in restraint of trade to the contrary notwithstanding.

This discussion does not overlook the occasions when returns or profits are independent of production costs. In a seller's market when prices are rapidly rising—rising more rapidly than costs—and a general wave of prosperity is being enjoyed, the return is accordingly increased. The larger return, which may be considered as consisting of two elements, (a) the normal return

incident to the industry and (b) profit due to extraordinary conditions, is predicated upon the excessive demand as distinguished from individual operating efficiency. Conversely, during an unsupported buyer's market, when prices may drop below production cost, losses are incurred which the most able management can not avoid. Again, this discussion does not overlook the large gains made possible by discovery of new natural resources—gains that may be unrelated to the cost of development. But these conditions are usually temporary. At least they are exceptional. The tendency of prices to approach cost of production is a long-time tendency. And the statement that cost of production finally determines return applies to general conditions over a period of years. Within an industry during periods of rapidly rising or falling prices, the low cost producer always earns the greatest return. Ordinarily there is no criticism when an industrial earns an excessive return, or profits, even when these profits accrue from a combination of circumstances not brought about by the industry and over which it has no control. The reason for this is simply that at a later date the industrial may suffer a deficient return, or losses, due also to conditions over which it has no control. The possibility of gain is offset by the hazard of losses. In the long run private industry is forced to its best effort in order to survive.

### III

Contrasted with the natural forces operating to regulate the return to industrials is the more artificial commission form of regulation that has been developed in the utility field. The necessity for commission regulation is no longer debatable. It strongly appears that regulation is here to stay and enough experience has been had to remove it from the realm of experiment. The principles of utility valuation and rate making have become well settled. It is pertinent to inquire whether commission regulation in any way may destroy the incentive of utility management, so forcefully preserved in the other great group of privately owned industries—the so-called industrials.

Prices charged for service by utilities are composed of two factors: (a) the cost of the service and (b) a return to the utility. The costs of operation include manufacturing or generating costs, such as fuel, labor, oil, supplies and maintenance, plus commercial, general and administrative costs, taxes and an allowance for

property retirements. The return, or that part of the rate to which the owners are entitled, is measured as to its adequacy by its relation to the fair value of the property used and useful in the public service. Utilities generally have the right to establish service rates themselves, subject to the approval of the public-service commission.

Rates are not established at what the service is intrinsically worth, for obviously the pure subjective value of an essential service—water in the home, for instance—is incomparably great. In the first instance, rates may be fixed at what the traffic will bear. In some cases rates may be prescribed by public opinion. For instance, some street-railway companies do not earn a return as liberal as the local commission would permit, simply because public opinion has associated the five-cent fare with surface electric lines for so many years that a higher fare is difficult to obtain. The same prejudice undoubtedly works against gas companies in some cities. There is less opposition to electric and telephone company rate revisions in the opinion of John Moody, the investment analyst. An inquiry to determine the fairness of a rate is necessarily a process of the application of arbitrary (i. e., discretionary as against natural) methods.

Public-service commissions have no formula for arriving at rates or approving those previously established, except merely to indicate the lower and upper levels between which the rate should fall. A rate should not be fixed at a point so low that the income produced will be inadequate to meet the cost of production plus a compensation to the owners for the use of their property. This is the lower level—the point of confiscation. The owners of public utilities have ample protection against that contingency in the provision of the federal constitution protecting property from confiscation—a provision the courts have never hesitated to enforce. The upper level is more vaguely described as that point where a given rate will become unreasonable and unduly excessive or simply that point where the rate is greater than the value of the service to the customer. The precise determination of the point between these two extremes for fixing a fair rate constitutes the main function of the regulatory commission. Ordinarily, there is a wide range within which the commission may exercise its judgment. The general rule remains that a rate must be reasonable to the company and to the customer. Of the two, reasonableness to the customer is paramount. Neither of these limits

is a test of the fairness of a rate. That is, if a utility finds that the income it is receiving does not permit a fair return, it will not be justified in increasing the rate solely because the increased rate would not be unreasonable or more than the worth of the service. On the other hand the utility could not be denied the increase solely upon evidence that the present rate is not confiscatory. These are but the extremes—the non-compensatory rate, the extreme to which the utility may suffer without intervention of the court, and the excessive rate, the extreme to which the customer may suffer in any circumstances.

If we assume that utility management is honest, the portion of the rate to recover operating expenses is reduced to a question of measurement. The utility will report and disclose the cost of rendering service, such amount will represent a dollar for dollar recovery and there will be nothing included in the cost for return or profit. The amount of the return and the percentage it bears to the property value will vary from year to year and become the index for measuring the fairness of the rate. A most important question in public-utility economics concerns the position the commissions are going to take with respect to the return. Among the industrials, return is virtually the reward for skill and ability. The characteristics which distinguish the utilities from all other private enterprises do not distinguish them on this point. Whatever return they earn is or should be the reward for skill and ability. Our present system of regulation may result in the stagnation of initiative and managerial zeal if sound policies are not evolved.

#### IV

There is a mistaken idea among some people that a return to the owners of public utilities may be held stationary, or nearly so, without causing disturbance in any other factor of an intricate and sensitive arrangement. An attempt to maintain a fixed rate of return, e. g., a return that shall always be equivalent to 7 per cent. on the fair value of property, could ultimately have but one effect. Managerial zeal and efficiency would be discouraged, if not stifled. The owners of such a utility then become virtually mere annuitants of their property lulled into a state of complacency without definite assurances that they can always earn as much and without hope of earning more than the prescribed return. There would be no change in the result whether the



fixed rate of return were a high return, a low return or an average return, if any improvement in operating conditions were the signal for a reduction in rates to bring the utility back to the previous level. If the permitted return were liberal there would be a strong inducement for the utility to become extravagant. It would not feel the urge to operate in the most economical manner because reductions in the cost of production would increase the already liberal return and precipitate a rate investigation. Liberal rates of return are not the fashion, however. They are the goal in a great many cases and not the attainment of the utility. If the return were just a normal one, again, the mere prospect that there would be no reward for more efficient service would discourage managerial incentive. And of course if the return were less than normal there would be more inducement to seek higher rates for service than to reduce operating costs.

It is submitted as a sound proposition that commission regulation should use every possible means to preserve and encourage the best efforts of private owners and managers of public utilities toward reduction of operating costs to an irreducible minimum. The most satisfactory way to stimulate such effort is to permit the owners to share the results. Regulation can not accomplish by fiat for the consumers of utilities what natural laws accomplish for the consumers of industrial products. If commissions adopt the "penny wise, pound foolish" policy of strictly limiting returns, the public can not consistently expect the best sort of service at the lowest prices. A policy of regulation which does not recognize or promote economy in all things places a premium upon extravagance in all things. Many of the war-time governmental building contracts were made on a basis of cost plus 10 per cent. profit. The effect was to encourage extravagant and unnecessary expenditures, for the greater the cost, the greater the profit. When dealing with the utilities the wisest policy would seem to be the lower the cost the greater the profit that will be permitted. Technically, it can be said that a utility does not make a profit—it earns a compensation for the use of property—when profits are taken to mean unrestricted gains due to changing relations between supply and demand. But if there is no hope of increasing its compensation to reward a bettered service, what likelihood is there that the utility will give the best service that it can? The cost of this service will be relatively and actually higher. While the utility may not net more money as

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expenses increase it does recover those expenses, but the consumer pays more to get less.

If a given rate were set at a given time and in given circumstances, that rate might be fair to the public and to the company. Thereafter intensive efforts to obtain more business, vigilance in conducting operations, prudence in making extensions, plus or minus factors over which the utility has no control (such as general variations in the business cycle), might produce a greater return than the given rate was intended at first to yield. Now, to reduce the rates charged so as to bring the return back to the same percentage of the property (which simply means that the consumer gets all the benefit and the utility none of the benefit) is manifestly unfair. This would remove all incentive to further betterment, as it is contrary to elementary human experience to expect people to do their work with zeal when there is no hope for reward. The consumer profits temporarily only, because he can not expect more golden eggs after the goose has been killed. The utility will continue to serve its patrons even under such conditions, just as a slave might continue to serve his master because circumstances do not afford him any alternative. The capital already invested in the utility can not easily be withdrawn and may be obliged to accept a hopeless future. But additional capital can not be forced into the enterprise.

Enlightened regulation will see that the best policy in the long run is to encourage utilities to get the most by giving the most; that while the utility may not expect profits in the sense of excessive returns, it may expect to share in the benefits effected through wise, careful and economical management. It should be remembered that utilities never are guaranteed any return. It is to be had only if it can be earned and the return it does earn arises from the utility's own effort. Many people have the false conception that because commission regulation may permit a certain return if it can be earned the commission guarantees that return at all times to the utility. The chief difference between the return of an industrial and that of a utility is that the latter should fluctuate within much narrower limits. Both are privately owned and both should be entitled to just reward for their efforts. With the industrial the reward is predicated finally upon the skill and ability of the management. There should be no discrimination against utilities on this point simply because discretionary regulation has largely replaced natural laws in the public-service field.

V

When the utility is not hampered, but induced to conduct itself in the most efficient manner, two results may be expected: (1) the lowest rate for the best service, which is the consumers' primary interest, and (2) a return favorably comparable to that earned by similar undertakings under similar conditions, which is the utility's primary interest. A utility thus situated should enjoy the highest credit, so that the large amounts of new capital which are required for plant extensions may be obtained at the lowest cost. The borrowed money will then require smaller interest payments and consequently make the return still more effective to the stockholders. From this reference to the cost of money the inference should not be drawn that the amount of the interest and dividend payments is any measure of the adequacy of the return. Such reasoning would lead one in a circle. Whatever return the utility earns represents all the compensation it gets. That amount belongs to the utility and may be disbursed or retained as discretion requires.

For some reason 6 per cent. has been generally considered a fair return. It is necessary to break away from the fetish of arbitrarily associating 6 per cent. with fairness and more than 6 per cent. with usury. There is no sound basis for such a standard, reducing as it does all utilities to a common level, where the able are penalized and the weak subsidized. An arbitrary rate of return may be fixed in the first instance, whether the commission has before it a new company or a going company whose property has not theretofore been valued. What shall this return be? The special master in the case of *Consolidated Gas Company of New York v. Prendergast*, decided by the United States district court in 1925, determined the rate of return from these questions: "If the investors were going to buy or build a property like that of the complainant, what amount would they feel that the property should earn in order to induce them to invest their money in the purchase or construction of such a property? Taking into consideration other classes of investment in this locality, with the comparative risks and return thereon, the rate of return generally required to secure proper credit for borrowing money and financing its operations, what should a utility company subject to state regulation be permitted to earn in order that it might compete successfully with other businesses and be on a parity with them?"

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In this case the special master decided that 8 per cent. was a fair rate of return. Both the patrons and the utility could rest their cases upon the correct answers to those two questions.

It is contended, however, that a further provision is needed unless rate litigation is to be a continuous affair. The further provision should be a recognition, whether expressly stated or followed as a fact, by the regulatory body that savings will be divided between the utility, in the form of enlarged return, and the public, in the form of lowered rates. One public-service commission has recently passed an order providing that for each five-cent reduction in rates to the consumers, the utility at the same time will be entitled to a return  $\frac{1}{2}$  of 1 per cent. greater. That is a definite and real spur to efficient operation which no alert management would overlook, except at its own expense. While the order did not say what would happen if rates were increased, it is to be presumed that some adjustment would be made in the return at that time also, especially if previously the return had been increased when rates were lowered. Rate increases as a rule are generally obtained long after they are needed and it is quite probable that the return remains low even after such increase.

The transportation act of 1920 provides for a varying percentage return on the property of railroads. The act fixed the fair return for 1920 and 1921 at  $5\frac{1}{2}$  per cent. plus an additional  $\frac{1}{2}$  of 1 per cent. in the discretion of the interstate commerce commission. Railroad rates are uniform within a rate group or territory, so that strong roads will earn more than weak roads at the same rates. The act accordingly provides that one half of the excess over the prescribed return may be retained by the carrier and that the other half shall be paid into a government fund to assist the weaker roads. It is true that these recapture clauses are the result of competition between strong and weak railroads—a competition absent among other utilities. But they serve to illustrate the essential fairness of a provision that does not restrict all companies to a minimum fair return or to any fixed maximum percentage return, but establishes an average fair return plus one half of the excess actually earned, however large that excess may be. The supreme court in the *Dayton-Goose Creek* case (263 U. S.) said: "Uniform rates enjoined for all shippers will tend to divide the business in proper proportion so that, when the burden is great, the railroad of each carrier will be used to its capacity. If the weaker roads were permitted to charge higher rates than

their competitors, the business would seek the stronger roads with the lower rates and congestion would follow. The directions given to the commission in fixing uniform rates will tend to put them on a scale enabling a railroad of average efficiency among all the carriers of the section to earn the prescribed maximum return. Those who earn more must hold one half of the excess primarily to preserve their sound economic condition and avoid wasteful expenditures and unwise dividends. Those who earn less are to be given help by credit secured through a fund made up of the other half of the excess. By the recapture clauses congress is enabled to maintain uniform rates for all shippers and yet keep the net returns of railways, whether strong or weak, to the *varying percentages which are fair respectively for them.*" (Italics supplied.) The Dayton-Goose Creek Railway had earned a return of 8 per cent. after paying over the required one half of excess earnings for the year. There is no necessity for recapture of utility earnings (except those of railroads) since there is no competition. But the principle of varying percentages of return which will be respectively fair for different companies is desirable.

## VI

In a few words the burden of the foregoing is that industrial managers have a positive inducement, if not a compelling force, to produce cheaply and efficiently; that the most efficient are rewarded with the largest returns, and that precisely the same condition should be fostered by regulatory commissions for utilities in the absence of natural laws. Unless utilities are permitted to share in their own economies, then unusual skill, efficiency or economy in management becomes a hazard and hence a real detriment to the utility, since the minimum return is predicated upon continued exceptional skill. The best way to encourage incentive and enterprise, it is believed, is to hold out to the utility the possibility of a larger return. If increases in the return are predicated upon reductions in the rate for service the nearest approach will have been made to the natural situation which governs the industrials. There have been several plans devised to accomplish this purpose. It is far more important that the public-service commission intelligently engage in the *practice* of a varying percentage return, than that any one plan be adopted. The so-called London sliding scale has been tried in England. Charles S. Morgan, in his book, *Regulation and Management of Public*

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*Utilities*, states that the plan has never become of wide application in this country. In a word, it is a plan of adjusting dividends to the stockholders with prices to the public. That is, increased rates are accompanied by decreased dividend payments and vice versa. The essential thing is, to repeat again what has been re-echoed throughout this paper, that regulation is based on the exercise of discretionary methods, that the primary motive in all business is the hope of reward, and, hence, that a very important part of the commission's function should be encouragement of that hope. After all, so far as the return is concerned there is no difference between industrials and utilities as privately owned industries. The average return to one must be in the long run substantially the same as the average return to the other, after allowing for attending risks. Capital will flow where the return is the highest, and utilities, since they constantly require capital, must be assured a return which will attract that capital. The return, if it depends upon managerial skill and ability, as is true with the industrials, will be a varying percentage, and it will be a very good measure by which to judge separate companies.