BROADCASTING AND THE THEORY OF THE FIRM*

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How many broadcasting firms should exist? Of what size should each broadcasting firm be? How should a broadcasting station be governed? Questions such as these pertain to the political economy of television and radio broadcasting in every nation, "political economy" referring simply to the relationships between political and economic considerations. The main object of asking and answering such questions, as will be attempted in this article, is to find and describe criteria which a state may use in decision making to maximize distributive justice in broadcasting while minimizing the employment of economic resources.

Distributive justice, in broadcasting as elsewhere, may be of two kinds, both recognized by Aristotle in *Nicomachean Ethics*:

(A) [O]ne kind is that which is manifested in distributions of honor or money or the other things that fall to be divided among those who have a share in the constitution (for in these it is possible for one man to have a share either unequal or equal to that of another), and (B) one is that which plays a rectifying part in transactions between man and man.¹

Aristotle's sense (A) might contemplate the distribution of signals or programs, while sense (B) might contemplate the distribution of compensation to a worker in a broadcasting firm. The kind of distributive justice with which this discussion is primarily concerned is that of sense (A).

Broadcasting firms are distinguishable from other firms in that they produce "a radiocommunication service in which the transmissions are intended for direct reception by the general public. This service may include sound transmissions, television transmissions or other types of transmissions."² The purpose here is to generalize about broadcasting firms from the theory of firms in general.

I

THEORY OF THE FIRM

Firms are distinguishable from families in that the firm is typically intended to serve first those who are external to it, while the family is typically intended to

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¹ ARISTOTLE, *Nicomachean Ethics*, in *THE BASIC WORKS OF ARISTOTLE 1005-06* (R. McKeon ed. 1941).

² ADMINISTRATIVE RADIO CONFERENCE, GEN. SECRETARIAT OF THE INT'L TELECOMMUNICATION UNION, *RADIO REGULATIONS: ADDITIONAL RADIO REGULATIONS, ADDITIONAL PROTOCOL, RESOLUTIONS AND REGULATIONS 6* (1959).

develop its own members. *Family* especially refers to the nuclear family of father, mother, and children in the household, but the household may contain those who are not members of the family. Indeed, a household comprising those who are not related by blood or by marriage may be more a kind of firm than a family, each member of such a household being in a different family. Although family and firm may be coterminous, family purposes may be distinguished from those of the firm. Firms thus may be seen as organizations of natural persons whose joint purposes are only secondarily the direct development of the individuals who work in the firms.

A typical view in contemporary economics places the theory of the firm within the theory of prices, finding or positing the behavior of firms as an explanation of change in prices, inputs, and outputs of industrial units.³ The assumed or stated environment of firms in this kind of microeconomic study is of more or less competition among more or fewer buyers and sellers who seek to maximize profit in a market having as few constraints as feasible upon the taking and keeping of profit. A main purpose of the firm is often stated as the making and keeping of maximum profit, while the counterpart purpose of the state is seen as the placing of no more constraints upon the firm's profits than are required for minimal satisfaction of the public good.

Yet firms may be organized for profit or as nonprofit ventures. They may be organized by private persons or by the state. Indeed the government of the state may be viewed as a firm or as a series of firms. A key observation is that the concept of the firm is not limited to describing business organizations of private persons who intend to make a profit in a market economy; it is much more general than that.

Indeed both the concept of the firm and the theory regarding the firm appear to be multiplying and changing. References to the firm in the English language have been recorded as early as 1744 for that definition which takes the firm to be a "partnership of two or more persons for carrying on a business; a commercial house."⁴ Subsequent references to this meaning are dated 1785, 1802, 1861, 1864, and later. By 1838 the firm was an element in economic theory.⁵

In the years since 1935, economists and others have debated with spirit the descriptive and predictive values of assuming that all firms always seek to maximize profit.⁶ Exchanges on this topic since 1946 have brought one writer to discern at least ten concepts of the firm and to hope that "[t]here will be no

³ F. MACHLUP, *THE ECONOMICS OF SELLERS' COMPETITION: MODEL ANALYSIS OF SELLERS' CONDUCT* 27 (1952).

⁴ IV *THE OXFORD ENGLISH DICTIONARY* 247 (1933). Use of the term in English coincides approximately with the industrial revolution in England; cf. T. ASHTON, *THE INDUSTRIAL REVOLUTION 1760-1830*, at 26 (1968).

⁵ See A. COURNOT, *RESEARCHES INTO THE MATHEMATICAL PRINCIPLES OF THE THEORY OF WEALTH* (N.T. Bacon transl. 1897).

⁶ Nordquist, *The Breakup of the Maximization Principle*, in *READINGS IN MICROECONOMICS* 282 (D. Kamerschen ed. 1967).

argument about which concept of the firm is the most important or the most useful. Since they serve different purposes, such an argument would be pointless."⁷

For example, in theoretical exploration of prices and allocation under conditions of competition, the firm is seen as an imaginary creature responding in pre-determined ways to postulated changes in its environment. In welfare economics the firm is seen as an imaginary being, a typical reactor, or an initiator, in which there is full and proper knowledge of the environment on the part of all such reactors and initiators. Unlike the theorist of price and allocation, the welfare theorist seeks to identify increases and decreases of welfare as well as relative changes in prices, inputs, and outputs. In organization theory the firm is seen as a typical system of humans who cooperate under some authoritative coordination. In management science the firm is seen as a system of information and decision making of a typical business operation. In legal theory and practice the firm is taken as a juridical person having property, claims, and obligations.⁸ Another view of the firm is as a unit in an industry of discrete organizations having similar output in common.⁹

For present purposes one firm may be distinguished from another if the people in a firm regularly and systematically comply with the requests or demands of the persons who govern the firm in which they serve rather than complying with the requests or demands of some other persons. The boundaries of the firm, like the boundaries of any human group, are at the limit of the legitimacy of requests and demands of the governors as perceived by the governed. Because the resources of a firm may be in part common to two or more firms, as in time-sharing of a computer, physical boundaries of a firm are those of time and space, in addition to the boundaries of human response.

If schools, churches, hospitals, or clubs are devoted first to the development of the individuals who receive services from them and second to the members of the firm, who are the members of such firms and who are the nonmembers? The members of the firm are the persons who give service, as contrasted with those who take service. Membership in such firms is not any more likely to be coterminous with legal ownership than membership in a large corporation is likely to be coterminous with a large group of shareholders who may hold legal ownership of it.

The members of the firm in a hospital are the staff of the hospital and the nonmembers of the firm are the patients who are treated. Legally, the hospital may be owned by physicians, patients, other private persons, or the state, or it may be of a nonproprietary character. The patients may respond without question to every order or suggestion of the staff. Yet neither ownership nor response to the authority

⁷ Machlup, *Theories of the Firm: Marginalist, Behavioral, Managerial*, 57 AM. ECON. REV. 1, 28 (1967).

⁸ *Id.* at 27-28.

⁹ Roberts, *The Concepts of a Firm and an Industry: A Survey*, in WOOLWICH ECONOMIC PAPERS, No. 18, at 1, 17 (1969).

of the firm determines the nonmembership of the patients in the firm. The patients are not members of the firm because on balance they take service instead of giving it. The patients may pay for service in money or goods and not be members of the firm; if they pay in services rendered to the hospital, then they may be members of the firm when they are on balance giving more service than they are taking. Volunteer workers in the hospital qualify as members of the firm, too, the membership being dependent upon the rendering of service and not upon the receiving of reward in money, goods, or services.

Suppose that an attorney pays for hospital services by rendering his services to the hospital in the form of advising on litigation in which the hospital is engaged. The attorney is a member of a law firm. Does his rendering of service to the hospital put him on the staff of the hospital and remove him from the staff of the law firm? If he serves the hospital as an individual, then he is a member of the hospital firm when he advises the hospital. If he acts as a member of his law firm, then the law firm is serving the hospital, and the individual is not.

At least two matters are exemplified here. One is that an individual in the course of an hour or a day or a week may be a member of two or more firms. Another is that when a member of firm A serves firm B he does not become a member of firm B as long as he serves as a member of firm A and not as an individual.

The especially noteworthy feature of these introductory propositions is the individual. He is the most fundamental and important human element in Western social, political, and religious thought; yet as a member of an economic unit—the firm—his development as an individual is secondary to the development of those individuals who are served by the firm. Should the firm, therefore, be reformed to the model of the family so that service to its members is placed ahead of service to nonmembers? The main advantage of the firm is that, with greater speed than members of a family can adapt to changing occupational demands of the general environment, the members of a firm may be either transferred in role, status, or reward within a firm or transferred to another firm. To transfer one's mother out of one family to another in which her mothering would be more productive is much more difficult than to transfer an economically redundant co-worker to another firm in which his abilities are better used. The existence of firms thus saves some costs of training or retraining that might be required if firms did not exist, while at the same time saving great potential costs in responding to changed economic circumstances by permitting rapid change in number of members.

There appears to be a kind of law of size regarding tenure of membership in a firm that is organized privately for profit: The smaller the number of owners of a private firm, the more likely it is that a member of the firm will own his position in the firm. To "own" a position in a firm means to have the continued choice of serving or not serving as an active member of the firm without much possibility

of one's service being rejected when it is offered. Thus when one owns a position he may choose not to serve in that position; the position may be left vacant or may be filled by another person. If he chooses to be active in the firm, he may fill a vacant position or require that a position be vacated for his service. When the number of owners of a firm is large, as in a corporation having many shareholders, the likelihood of a member of the firm owning a position is small. Large firms more than small ones, therefore, should be able to maximize the advantage of the firm over the family in having the ability to transfer people whose abilities are redundant.

Yet if there are many small firms and transfer between them is easy, the possibility of the successful transfer of redundant workers may be as great as obtains in a population of a small number of large firms. The suggestion is that the very small firm of, say, two or three persons who own their positions, or very nearly own them, should be discouraged in favor of a size that permits easier transfer within firm or between firms, if not a different kind of ownership.

Flexibility of the firm in engaging human resources of its members implies a system of mutual obligations that is much less binding among its members than are the obligations among members of a nuclear family. Indeed, it becomes possible to define the nuclear family as that kind of face-to-face group among the members of which exist the greatest possible reciprocal human obligations in number, kind, and strength. The main economic advantage in having firms that are not families may be bought at a cost in the priority of the individual's claims for his self-development upon firms in which he is a member.

Given the development of individuals as a chief purpose of all kinds of human groups, what may be said of the theory of the firm in which pursuit of profit is instrumental to the continued existence and growth of firms? There is good reason to confirm the legitimacy of the firm by looking, first, to the benefits produced by the firm for individuals who are not members of it and, second, to the benefits produced by the firm for its individual members. A central test of the legitimacy of a particular firm is in the extent to which individuals benefit importantly and directly from the economic output of the firm. If it is resolved that the state is to serve the individual, and not the reverse, then it should be resolved that the firm is to serve the individual, and not the reverse, for the state is to regulate the firm, and not the reverse. Both the state and the firm are valuable to the extent that they develop the individual; that is a main warrant upon which political economy may be founded.

The individual is important for himself, simply because all life, including human life, is important. Beyond that simple assertion is the importance of the individual as the human source of all faith and reason. Individuals love and cherish, discover and invent. Groups may facilitate and assist; yet the individuals are the prime units of creativity, be the creation biological, intellectual, or artistic.

Political economy, therefore, is to be guided by what benefits the individual for the sake of the human good he may produce. Within this context for judging the state and the allocation of resources, it should be possible to judge the fair allocation of economic inputs to broadcasting, outputs from it, and the firm or firms to which the inputs and outputs attach. At least it should be clear that the simple economic purposes of firms are insufficient to the purposes of political economy, if the economy is designed to serve the individual more than either the firm or the state.

II

DESIDERATA IN BROADCASTING

Broadcasting may be seen to have different functions for the individual, the firm, and the state. The personal purposes of the individual differ from the largely economic purposes of the firm, which in turn differ from the mainly political purposes of the state. The first but not the sole aim of the individual is entertainment; the firm broadcasts first to exist economically, and then to grow, if possible; and the state regulates broadcasting first in the interest of the security of its people. That individual, firm, and state have purposes in common is as apparent as their differences of purpose.

Members of the general public who were interviewed in Michigan divided their favorable responses to local television broadcasting with a weight of about sixty-one per cent to entertainment and about thirty-eight per cent to news and education.¹⁰ Earlier studies concerning viewers of television in the United States brought another researcher to conclude,

The real question is to what extent, or how often, people would choose to watch the *better*, more enlightening, less escape-filled schedule. Both the ratings and our limited data suggest that the answer is "not often," at least under conditions where a choice exists.¹¹

Even earlier a different researcher concluded, "Program preferences are much the same in Britain as in the United States and elsewhere, with radio listeners and television viewers seeking entertainment and avoiding culture."¹²

For their parts, owners and managers of commercial broadcasting stations in the United States tend to remark in public and in private that their first aim is to get enough revenue from advertising to permit their broadcasting efforts to continue. A truism among broadcasters is that the ethical component of their business decisions is weakened to the extent that their profits are diminished. The Federal Communications Commission has recognized the importance of profits to commercial broadcasting:

¹⁰ Baldwin & Greenberg, *A Comparison of Public and Community Leader Attitudes Toward Local TV Programming Needs*, 13 J. BROADCASTING 111, 121 (1969).

¹¹ G. STEINER, *THE PEOPLE LOOK AT TELEVISION: A STUDY OF AUDIENCE ATTITUDES* 241 (1963).

¹² B. PAULU, *BRITISH BROADCASTING IN TRANSITION* 189 (1961).

A prosperous broadcasting industry is obviously in a position to render better program service to the public than an industry which must pinch and scrape to make ends meet. Since the revenues of American broadcasting come primarily from advertisers, the terms and conditions of program service must not be such as to block the flow of advertising revenues into broadcasting. Finally, the public benefits when the economic foundations of broadcasting are sufficiently firm to insure a flow of new capital into the industry.¹³

The prime purpose of the state's concern with broadcasting is to assure the safety of the people of the state. Centuries of political experience and philosophy have placed security ahead of all other purposes of the state. For example, in 1651 Thomas Hobbes in his introduction to *Leviathan* found the business of the state to be *salus populi*, the people's safety.¹⁴ The writers of the Declaration of Independence of the United States proposed "to institute a new government, laying its foundation on such principles, and organizing its powers in such form, as to them shall seem most likely to effect their safety and happiness."¹⁵ Indeed section 1 of the Communications Act of 1934 states that the FCC is established for four purposes, two of them being those of national defense and safety of life and property, the other two being to regulate communication and to secure a more effective execution of policy.¹⁶

States seem to count both domestic broadcasting and international broadcasting as important to cultural identity, and thus to political identity with its focus upon security. Canada and Israel are examples of states in which development of domestic broadcasting services to intensify unique national identity has been a deliberate counter to feared cultural engulfment by various means, including domestic broadcasts of neighboring states—the United States being a special concern of Canada, and neighboring Arabic-speaking states being a special concern of Israel. Increasing numbers of small and large states have taken to international broadcasting as a form of fostering national political identity and its associated national security.¹⁷

If the broadcasting firm is to be formed, to persist, or to grow, its task is to find the economic inputs that will permit it to provide the economic outputs that satisfy both the state and the individual sufficiently to maintain adequate prices for its output. The differing major purposes of individual and state with respect to broadcasting tend to be notable upon the quite local scenes of local municipality or local voluntary associations as well as the national scene. Although the members of the

¹³ FCC, PUBLIC SERVICE RESPONSIBILITY OF BROADCAST LICENSEES 47 (1946).

¹⁴ Hobbes, *Leviathan or the Matter, Form, and Power of a Commonwealth Ecclesiastical and Civil*, in SOCIAL AND POLITICAL PHILOSOPHY: READINGS FROM PLATO TO GHANDI 139 (J. Sommerville & R. Santoni ed. 1963).

¹⁵ Jefferson et al., *The Declaration of Independence*, in SOCIAL AND POLITICAL PHILOSOPHY: READINGS FROM PLATO TO GANDHI 239, 240 (J. Somerville & R. Santoni ed. 1963).

¹⁶ Communications Act of 1934, § 1, 47 U.S.C. § 151 (1964).

¹⁷ S. Shafey, *International Broadcasting and Its Societal Environments: A Test of Hypotheses* 23 (unpublished thesis in preparation, U. of Southern California, 1969). Table 1 displays the number of countries engaged in international broadcasting during selected years: 1948, 22 countries; 1952, 49; 1956, 63; 1958, 59; 1962, 77; and 1966, 77.

general public who were interviewed in Michigan divided their favorable responses to local television with a weight of some sixty-one per cent to entertainment and some thirty-eight per cent to news and education, their community leaders divided responses about fifty-three per cent to news and education and forty-eight per cent to entertainment.¹⁸ News-education and entertainment were nearly equal favorable elements of local television to the leaders, while entertainment clearly outshone news and education in the eyes of the members of the general public.

Taken to its fullest extent, the first requirement of the individual upon the broadcasting firm might be to provide an infinite variety of broadcast matter at instant demand. The individual should be able to command any topic in any of several forms, including sound broadcasting, television broadcasting, and facsimile broadcasting. Technical choice here is between one bidirectional channel, or a few among which the individual may select, and an infinitely great number of unidirectional channels from which he may select. In a conventionally strict sense only the unidirectional channels are broadcast channels. If the individual is to have the widest choice for a given number of channels, then he should prefer the bidirectional ones to the unidirectional ones. Each performance in a bidirectional channel could be heard or viewed in just those parts that are of interest to the individual, much as one skips through a book to read only the most important parts when time or interest is limited. A unidirectional channel makes the individual the captive of seeing a whole broadcast through, willy-nilly, or at best monitoring the whole time sufficiently to determine the parts that seem worthy of full attention. A home library of recordings, from which selection may be made, substitutes for many channel-hours of broadcasting.

To the individual who wishes to hear a certain brief passage of music or to hear it frequently, a fairly large number of broadcast channels rendering different portions of the same musical work simultaneously would be ideal. It seems a presumption that two broadcast channels carrying different popular songs at the same time provide no variety if one's individual interest is in a choice between popular songs, in different passages of the same song at a given time, or in sequential repetition of the same passage. The individual goal of variety (being the desideratum in place of different particular works of one type or different parts of particular works) does not match the social or civil ideal of diverse types of broadcasts, such as films or music.¹⁹

The best of all worlds of the broadcasting firm might be to provide all service in broadcasting and to take all of a nation's profits in that field or industry. A really ambitious firm might become the whole of several industries or all of the industries in a nation or several nations or all nations. When a broadcasting firm

¹⁸ Baldwin & Greenberg, *supra* note 10, at 121.

¹⁹ *E.g.*, HERMAN W. LAND ASSOCIATES, INC., *TELEVISION AND THE WIRED CITY: A STUDY OF THE IMPLICATIONS OF A CHANGE IN THE MODE OF TRANSMISSION* 31-32 (1968). Diversity in broadcasting is defined as flowing from different types or categories of program and not particular programs.

is the whole of an industry in a nation, it may be difficult to distinguish it from the state, as exemplified by the British Broadcasting Corporation with its monopoly of domestic sound broadcasting in Britain. Most usually a monopoly of broadcasting implies ownership and operation of the system by the state. Yet the private monopoly for profit or not for profit that is not a direct part of the state is known in places such as Luxembourg and the Netherlands. The firm having a monopoly in broadcasting tends to provide a minimum number of channels and programs, for the cost per channel and per program is minimized. These economies of scale and of standardized output may be consonant with the aim of the state; yet they oppose directly the aim of the individual. Opposition of firm to state is clear in the proposition that a private firm should not dominate a state, both from the standpoint of the state and the standpoint of the individual.

Broadcasting serves the state most fully when political ideas permeate all broadcasts as much as possible. In an open or pluralistic state the fullest of public discussion of different views on public issues is sought through broadcasting. In a closed or totalitarian state a comparable fullness is sought for the official views of the state. In both kinds of states the ideal is for the political figure to have the quickest and longest feasible hearing for his thoughts, as well as the widest hearing. On these terms, broadcasting is much better suited to the national figure than the local one, unless it is assumed that each candidate for political office in a subdivision of a municipality should address a national audience. A certain waste inheres in all domestic political broadcasting. Just as a candidate for national political office may be heard by citizens under voting age or by persons in an adjoining nation, so too the candidate for local office is heard by nonvoters and in jurisdictions in which he has no possible electorate. The apparent waste is not total, for the individual may find political value in the utterances of a candidate for whom he is unable to vote; yet the waste may remain from the standpoint of the state, for the individual's gain may be seen to be of no particular benefit to the state, and in some states may be taken as a detriment to the state.

If some maximal aims of individual, firm, and state appear to be antithetical to one another, one might inspect the putative aims of each that are less than maximal. The individual would have at least one signal containing what he cares to have, if not when he most cares to have it. For the content of the signal to be of any use to him, he must be able to receive when other prior demands are not upon him or be able to subordinate other demands to the act of receiving. Inconvenience and other costs at some point balance the benefits of receiving; that is the point of indifference to the broadcast. If an individual is indifferent to all available broadcasts, then for practical purposes broadcasting is of no value to him. One signal period being worthy of reception, then second and third signal periods ought to be added, and so on, up to some practical limit upon the available energies of the individual. It is not necessary to add channels to one another if the

individual attends to different periods of one channel, an assumption being that he will use but one channel at a time. Probably he will use no more than two or three channels at once; he might record from a facsimile channel while watching a sports event from a second channel and hearing background music from a third, for example. The less he finds to satisfy him in a given period the longer he must wait between satisfactory uses of one channel, or the more channels he must have available, each containing something different from each other.

This analysis pertains to entertainment of the individual and to his reception of broadcasts generally, but it does not necessarily take into proper account his needs for news and other information. The first concern is that he have some news or information of his locality, for the immediate environment has first power to affect his well-being directly and invalidity and reliability of many local reports in the single channel are subject to direct observational test by the individual. An unreliable or invalid single channel containing news or information soon goes unheeded or ridiculed for much or all of its informational content. It is fairly easy to verify reports of daily range of temperature or of frequency with which trash is collected without having access to another broadcast channel or to a local newspaper. The more remote the event—the less, in general, its immediate, perceived import to the individual—the less subject it is to direct observation and evaluation by the individual, and the more necessary are reports from two or more independent, reliable, and truthful distant observers. The minimal need of the individual appears to be for at least one signal from a provincial source, one from a national source, and one from an international source, each successively supplemented by a second independent one. Both the cost of receiving equipment and the technical uncertainties of long-distance transmission tend to attenuate the opportunity of the individual to receive direct signals as the distance to the source of information increases. Fostering of direct long-distance broadcast transmissions to homes via satellites thus appears to be in the interest of individuals, if not firms or states. The number of editors who mediate between the source of information and the individual recipient is to be minimized, as is the number of transmission relays, if the recipient is to be served most reliably and validly.

For the firm as for the individual the minimal condition is existence. For the broadcasting firm the minimal condition is approval by the state to begin to broadcast or to continue to broadcast. A firm may exist before it broadcasts, and it may continue as a firm when it no longer broadcasts. The firm that puts existence before broadcasting, therefore, ought to be diversified, for the license to broadcast is surely more difficult to get and possibly easier to lose than the license to engage in many other kinds of permissible activities. A firm having a national monopoly of broadcasting is unlikely to have permission of the state to engage in many other diverse businesses, unless the state itself is indeed the broadcasting firm. Firms that are small relative to others and to the state are likeliest to be permitted by the

state to diversify. Yet the state may insist that even a small firm engage in broadcasting to the exclusion of other activities on the ground that to divide the efforts and the attention of a broadcasting firm is to reduce the quality of broadcasts, however undemonstrated the truth of the proposition may be. In that event the life of the firm may be fairly precarious, and its members might then turn to a second main goal of the firm, growth without diversification. The attempt to assure the life of the firm may underlie tendencies towards both economic concentration within an industry and economic diversification between industries—broadcasting being taken as an industry. The life of a broadcasting firm is worthy of continuation, in the view of the members of the firm, because the members find financial and other satisfactions through the firm.

Growth of the firm might be sought by rational members who find increasing satisfaction with increased personal gains, if not social gains, as the firm grows. The growing firm may suggest to its individual member a growing assurance of opportunity to keep a position in the firm and to get increased rewards from that position. The broadcasting firm, like other firms, may be induced by the desires of its members to grow or to change enough to keep its worth. A diminishing personal value of being a member of a firm, if held by all members of a firm, suggests an end of various positions and a probable end of the firm, unless individuals can be found who view the firm positively and are willing to join it. The declining firm is of less value to a member than a growing one or a dynamically stable firm because decline may suggest decline of individual rewards as well as corporate ones. Given equal rewards in a declining firm, a stable one, or a growing one, and given differential abilities among members of broadcasting firms, one might expect the most able members to attach to the growing firm first, the stable firm next, and the declining firm last. Taking this proposition in another way, the declining firm might be forced to provide greater rewards than the stable firm or the growing one in order to get or keep members whose abilities are equal to those of members of other firms. Thus, either growth or decline may be accelerated by transfers of the most able members of firms, assuming that human abilities have important effects upon the operations of firms.

In applying this kind of analysis to the broadcasting industry, one might assume that at any given time the industry is neither the fastest growing nor the fastest declining and that on average the abilities of the members are of the middle range. Similar assumptions might be applied to both national economies and particular firms within a broadcasting industry. The individual who seeks to maximize personal gain by being a vital part of the fastest growing economy's fastest growing industry's fastest growing firm probably would not choose to join any broadcasting firm in any national economy. Loyalty to nation, industry, and firm may help to account for some part of employment in a particular broadcasting firm, as may real or perceived inability to take other employment that is more satisfying

to the individual. Although the large slowly changing firm may offer as much attraction to the individual as the small rapidly growing firm, the small and rapidly declining firm might have least attraction. The task of the firm thus might appear to be to grow large enough for reasonable stability and to take care to avoid sudden decline, if it is to attract and keep able members. A special attraction of the small firm is its potential for growth; small size is also cause for risk of early demise. Some individuals may be attracted to the small and rapidly declining firm for the extraordinary potential rewards of halting the decline or reversing it.

Although highly able persons may join any size or kind of firm in any industry and any economy, one would expect on average that the few most able individuals would join the largest or fastest-growing firms in the largest or fastest-growing industry of the largest or fastest-growing economy. This expectation contemplates more small firms than large and a rapidly ascending scale of abilities such that, on average, only the most favored firm would acquire the most favored individual. Within an economy or an industry one might expect a similar distribution of the ablest persons to the most rewarding affiliations. Thus a broadcasting firm would have a better chance of getting and keeping the best members according to the scale of rewards it offers. "Best people" here and elsewhere has no particular moral implication; it is meant to convey individual abilities suited to the purposes of the firm in which the abilities are engaged. The abilities may be in any strengths and kinds that serve those purposes.

Seen from this perspective, the broadcasting firm, as others, is a system of individual abilities. A main task of the firm as an economic entity is to maximize the highest application of the highest individual abilities to the purposes of the firm, while minimizing the economic expenditures of the firm in the exchange. In the economic sense the firm sets itself against its individual members' maximizing of the returns to each individual from the firm, just as each individual may attempt to maximize his rewards from the firm while minimizing his losses to it. Thus is struck a dynamic equilibrium between firm and individual, each putting certain values on both the directly economic considerations and the conventionally non-economic ones such as prestige, propinquity, and real or perceived opportunity for future advantage. Comparable equilibria may be reached between the firm and those who take services from it, as well as between the firm and the state. To complete the correspondences, one might posit equilibria between the individual as member of the state and the individual as recipient of services of the state. Because the individual makes up both the server and the served in both firm and state, the individual in different times, places, roles, and statuses is able to balance firm against state in pursuit of maximizing his gains over his losses or minimizing the net of his losses that exceed his gains.

Recognizing that state charters firm, the goal of a firm ordinarily might be to become strongly international for the purpose of minimizing danger to its fortunes

through loss of charter or loss of other important benefits in a single nation. Establishment in several regions of the world could prevent fatal damage to a firm through upheaval in a whole region. Extraterrestrial establishment is to be a preference of firms, families, and states as colonization of space goes on. Yet the broadcasting firm has a particular disadvantage in becoming self-protectively international because every state tends to curtail or prohibit the ownership and operation of transmitters by noncitizens while tending to minimize purchase or broadcast of programs that originate in other nations. Two general beliefs appear to be that cultural invasion is tantamount to political subversion of the identity of the state and that operation of broadcasting by noncitizens is a sign that sovereignty of a state is diminished or lost. The international development of a broadcasting firm would appear to be easiest through general diversification within nonbroadcasting industries, exports of broadcasting services being a small if noteworthy fraction of the total value of exports of a country such as the United States, as shown in Table 1.

TABLE 1
VALUE OF SELECTED U.S. EXPORTS, 1966

Item	Millions of 1958 dollars
Total.....	\$40,241.3
Services.....	8,334.8
Radio and television broadcasting.....	34.7
Finance and insurance.....	34.2
Medical, educational services, and nonprofit organizations.....	14.4

Source: C. Bowman, *Report on Employment Related to Exports*, MONTHLY LAB. REV., June 1969, at 19.

TABLE 2
RANKINGS OF SELECTED BROADCASTING FIRMS AMONG ALL U.S. FIRMS

Company	Assets	Revenues	Market Value	Net Profits
Radio Corporation of America.....	72d	25th	26th	27th
Columbia Broadcasting System.....	307th	140th	84th	127th
American Broadcasting Companies.....	482d	230th	459th	446th

Source: *The Dimensions of American Business: A Roster of the Country's Biggest Corporations*, FORBES, May 15, 1969, at 128, 136, 160.

That broadcasting firms are not typically among the five or ten financially largest firms of a nation is illustrated by data for the United States shown in Table 2. The largest of these firms, Radio Corporation of America (RCA), is known primarily for its manufacturing, and a breakdown of its business is shown in Table 3; the other two firms listed in Table 2 also have significant revenues from sources other than broadcasting. Furthermore, broadcasting engages a relatively small number of employees in a national economy, as exemplified by recent data for the United States shown in Table 4. Taken together these indicators suggest that, in an economy such as that of the United States, broadcasting by itself accounts for much

TABLE 3
SOURCES OF REVENUE AND PROFIT, RCA, 1968

Source	Proportion of Revenue	Proportion of Profit
Total.....	1.00	1.00
Consumer products and services.....	.46	.59
Broadcasting, communications, publishing, and education.....	.23	.29
U.S. government contracts.....	.17	.03
Vehicle rentals and related services.....	.14	.09

Source: RCA Corp., STANDARD LISTED STOCK REPORTS, August 4, 1969, sheet 1891.

TABLE 4
EMPLOYEES ON NONAGRICULTURAL PAYROLLS BY SELECTED INDUSTRIES IN THE U.S.,
DECEMBER 1968 (PRELIMINARY)

Industry	Number in thousands
Total.....	70,095
Transportation and public utilities.....	4,400
Communication.....	1,023
Telephone communication.....	843.5
Radio and television broadcasting.....	134.3

Source: *Employees on Nonagricultural Payrolls, by Industry*, MONTHLY LAB. REV., March 1969, at 90, 92.

less than one per cent of some kinds of economic activity and that a firm in which broadcasting accounts for as much as half of revenues is not likely to be among the twenty largest firms in the economy. Put another way, the suggestion is that the very largest firms in such an economy are able to find broadcasting no more than a substantial sideline, while the whole economy counts broadcasting as a very small fraction of both input and output.

From the viewpoint of the state the major purposes of the broadcasting firm are to support and develop functions and processes of the state. Some typical functions of the state are to protect persons from harm and property from loss; to promote the physical and mental health of individuals; to provide for educational, cultural, and recreational development of individuals; to assure satisfactory supplies of food, clothing, shelter, transportation, communication, and other items of personal maintenance; and to supervise economic development of individuals and firms. To the extent that officials and others have full and free access to broadcasting facilities for the promotion of such functions, to that extent does the broadcasting firm strengthen the state from which it gets license to broadcast. Although representatives of police, health officers, welfare workers, and the like usually have some access to broadcasting facilities, seldom is there a rational distribution of broadcast time among them, the norm being a kind of haphazard recognition of immediate pressures.

Remaining to be developed in most places is equitable distribution of broadcasting

time between various units of the state on one hand and comparable equity between the state, private voluntary organizations, firms for profit, and individuals on the other. Councils, committees, or panels representing these different interests within the signal area of a transmitter may evolve in the long run. The principle to be developed is that those who reside or work within range of a broadcast signal have a political right to direct the uses to which the signal is put, and that this right extends to various kinds of organizations as well as to the individuals who make up the organizations. Because broadcast signals cross political boundaries, the political right is both primary and secondary, the primary right belonging to those within the political boundary of the transmitting site and the secondary right belonging to those who are outside that boundary. In other words, the residents of metropolitan area B who receive a broadcast signal from metropolitan area A have a secondary right to control the uses of the signal, while the residents of A have a primary right. That A and B are in different states and thus are served by different broadcast licensing authorities may weaken the secondary right but does not destroy it. International broadcasts from an enemy source in time of war are controlled in part by the known or surmised habits and preferences of the presumed recipients of the signal, for transmissions are nearly useless unless they are received, and to serve recipients means to respect some wishes of the recipients. International signals in time of peace take into account the whole range of desired commercial, political, diplomatic, and other relationships with the recipients, as do interurban signals within a state. Whatever the political machinery for adjusting the uses of a broadcast signal to those who receive the signal, there is clear need for some way of choosing among conflicting demands for the available broadcast time. Thus it is that the desires for economical and fair uses of a signal create a political economy of that particular signal. When two or more signals serve the same individual, he has a right in the use of each of them.

III

CRITERIA FOR GOVERNING BROADCASTING

Each individual may be identified uniquely by the complex or community of signals in which he exists at a given moment or during a stated period. The community is bounded by his perception of signals and by the availability of signals. He may not attend to all available signals, and the number of available signals may vary. These considerations give rise to the proposition that every individual has a unique community of rights in signals, for his community of signals is unique. Similarly every family, firm, state, and other organization may be identified by the unique community of signals in which it exists at a given time and may be said to have differing combinations of rights in the signals. The signals in a community include all types and kinds, not being limited to broadcast signals. An important function of the state is to identify, define, and protect rights of individuals and

groups of individuals in both transmission and reception of all kinds of signals, recognizing that, if each community of signals is unique, then each is unequal to every other.

Assuming that broadcast signals are not distributed completely equally to all individuals, upon what principles should priorities of distribution be based? With what kinds of rules should the state license the distribution of broadcasting signals? The first signals might serve those whose community of signals is smallest—those who are located where few other signals exist—for they have the most to gain from the addition of one broadcast signal to the nonbroadcast signals. Normally the far reaches of the back country would benefit most from a broadcast signal. People are few, organized systems of communication are thin, and literacy tends to be limited. Indeed a second criterion of licensing sound-broadcasting and television might be to supply it where literacy is most limited, for reception of broadcasts does not require ability to read. A further rule might be to set up broadcasting where people are poorest, for this kind of communication is more a creature of the state than any other, wealthier people have greater ability to get all kinds of communication, and the state has a duty to attempt to equalize opportunity. When all have one broadcast signal, the place to begin service with a second broadcast signal could be determined by the same set of criteria—look to the places where people are farthest apart, least literate, and poorest.

Technology, economy, and politics seem to work against using criteria such as these in broadcast licensing. The most populous places seem to have the most broadcast signals as well as the most signals of all kinds, the greatest share of literacy, and the largest share of wealth.²⁰ A transmitter is most likely to be set up in a town or near one, for economic resources and administrative control are there; the transmitter thus provides a very strong signal to the town and a weaker signal to the countryside. If a chief source of revenue with which to operate the transmitter is from advertising, the larger the town the more likely it is that it will have one or more transmitters, for advertising revenue is roughly proportionate to population served with a strong signal. If the source of revenue is taxes, the transmitter is very likely to be in a town or near one, for the popular support of the political authority collecting the taxes will reflect the extent to which the many taxpayers in the town get better service than the few in the rural areas. Similarly the higher rate of literacy in the larger town will be a basis of greater wealth that yields more advertising revenue and more tax revenue than the lower rate of literacy and lesser wealth of the country.

Several remedies against these compoundings of inequalities suggest themselves. Direct satellite-to-home broadcasts could supply wide areas with very good signals.

²⁰ Notwithstanding recent large attention to poverty in central cities of the United States, "we find that most of the poor, nonwhite and white, live outside the central cities of metropolitan areas." Newman, *Perspectives on Poverty I: Changing Attitudes About the Poor*, MONTHLY LAB. REV., Feb. 1969, at 32, 33.

Tax revenues of the state could operate transmitters where population is thin, leaving operations in populous areas to support by advertising revenues. A condition of a license to broadcast with advertising revenues in rich areas could be operation of transmitters in other areas that have smaller potential profit.

Although the state has intervened in the distribution of broadcasting signals as an appropriate part of its power to license transmissions, it has done little to equalize the distribution of reception and has placed a disproportionate burden upon the poor where receiving equipment is licensed. Typically, reception equipment is manufactured and sold by state firms or private firms or some combination of them; the equipment is not given to each person or group of persons equally as a return of benefits from tax collections. This oversight further compounds the inequalities of distributing the signals so as to further favor the urban, more literate, and wealthy and to further disfavor the rural, less literate, and poor. It is akin to putting some food before a man and then requiring him to buy eating utensils before permitting him to eat.

Many countries add to the difficulty by charging an annual fee for licensing of receivers that have been purchased by those who are able to afford the whole price of reception. The purpose of the license fee for the reception is to support some or all of the broadcast transmissions. Because the typical license fee for reception is not scaled up according to income of its payer, the uniform fee bears most heavily upon the poor. In the United Kingdom, for example, special radio and television license savings cards are urged upon the poor because the poor are thereby encouraged to pay a little at a time until the whole amount of the fee is ready to be handed over to the collection agency at the post office, thus ostensibly diminishing the impulse to evade the fee. The uniform fee is not necessarily more moral than the hidden collection of a fee for broadcasting service through advertising revenues; it is merely more obvious and painful. Because most items advertised through broadcasting are sold in high volume at low unit price and are used by almost everyone in equal measure (for example, soap, food, and the like), the heaviest share of the cost of broadcasting tends to be borne by those whose incomes are lowest.

Some remedies against inequality of distribution of receivers are to subsidize purchases of receiving equipment by the poor or decrease the tax they pay in the purchase, or both. As for the inequalities of payment for the transmissions, one remedy would be to pay for broadcasts from a graduated tax upon incomes, another would be to refund to the poor an equalizing share of the cost of broadcast advertising, and a third would be to reduce the taxes of the poor proportionately. The right to receive is as important as the right to transmit, for the two are parts of a single process. Both are recognized in the Universal Declaration of Human Rights: "Everyone has the right to freedom of opinion and expression; this right includes freedom to hold opinions without interference and to seek,

receive and impart information and ideas through any media and regardless of frontiers."²¹ The rights to govern broadcasting firms thus ought to be distributed to those who seek, receive, and impart information on the assumption that those who have rights in a thing ought to have some voice in its government. Those who seek are the largest and most general part of the public; their interests could be forwarded to licensees by the licensing authority. Those who receive are a special group whose representations to a licensee might be made through committees, councils, or panels of which the responsibility is the licensee's. Those who impart are in the staff of the licensee and in the general community. A committee of the staff should recommend to the licensee, if not participate in ownership.²² And as was suggested above, those who represent the users of broadcast time, including the state, private voluntary organizations, firms for profit, and individuals, should counsel the licensee, as should ownership and creditors of a licensed firm. Government of the broadcast firm thus would belong to all who have interest in its operations. It is not implied that the voice of each of these kinds of parties should equal the voice of each other but merely that each should be represented actively.

These observations upon attempts to equalize access to both transmission and reception have little or no direct bearing upon the question of the best number of broadcasting firms in an economy, for they may apply equally to an economy of one firm or ten thousand, given the political power to regulate both transmission and reception. It is a rare state indeed in which total production of programs, advertising, transmitters, receivers, and collection of license fees resides within a single operating establishment or firm, although one may think of economies in which the state is the sole and common owner of all of these kinds of operations; and it is difficult to think of an economy in which all of these kinds of endeavor are not chartered or licensed, if not taxed, by some arm of the state. The matter of common ownership of firms is thus separable from independence of action within a local firm. Broadcasting firms may be decentralized sufficiently to warrant calling each local unit autonomous for the practical purpose of offering specialized services to local audiences. What matters from the viewpoint of the recipient of broadcasts is primarily the quality of the service and its amount. Opportunities for employment are the same, whether or not ownership is local, if the size of staff and its composition are optimal for the task that is to be done. From the viewpoint of the state there is neither advantage nor disadvantage in nonlocal ownership or operation, given the requirement that program output be localized. It has been proposed that the large mature corporation of today, which would have qualified as an evil Veblenesque absentee owner of yesteryear, is a cooperative ally of the

²¹ Universal Declaration of Human Rights, art. 19 (1949). See also *Red Lion Broadcasting Co. v. FCC*, 395 U.S. 367 (1969).

²² In France and Germany groups of journalists bargained for partial purchase of the publications in which they were employed in order to obtain some direct voice in editorial policies. Servan-Schreiber, *Journalistic Takeover*, 77 *NEW STATESMAN* 870 (1969).

state by comparison with the small and often corruptive entrepreneurial local firm.²³ Recent experience in the United States suggests that it is easier and quicker for the licensing authority to work a change in the composition of the labor force of broadcasting through the largest employers than the smallest. Yet there remains a nagging belief that the fate of public officers in coming to power depends upon the favor of broadcasting firms, and that the large broadcasting firm will be more powerful in seeking its own ends than the smaller one. Two safeguards stand against this slowly dying legend. One is that the broadcasting firm must be fair to all comers, giving equitable exposure to each. The other is the repeated finding from research upon various mass media, including television, that people use programs and announcements more to reinforce their existing political predispositions than to change them.²⁴

If the size of a broadcasting firm and its political orientation are not necessarily pertinent to either the programs available to the recipient or to some advantage sought by an office-holder in the state, what is the best number of broadcasting firms in a national economy? The question itself is extraordinary when one assumes that an industry may comprise one firm or many and that, given an industry of a certain size, fewer firms will be larger ones and more will be smaller if each firm is devoted to that industry alone. Clearly it is a question to which there is no unequivocal answer. Perhaps it is a question to which there is no one rationally pertinent answer. And if there were several good answers, the answers would not matter much, except to those who care to debate. In short, given an honest and politically responsive state as licensing authority, the number of broadcasting firms in the state might be one or ten thousand without making any difference in broadcasts, employment, or political life, for there is an optimal number of local transmission centers that does not depend upon the number of firms or the size of any firm as much as it does upon the service it renders through specialized broadcasting to the people within range of its signal.

Broadcasting firms, like other firms, the family, the state, and the full array of other human organizations have as a first purpose the development of the human individual. The pointed test of worth of a broadcasting firm is less in broadcasts of information or entertainment than in comparison of human qualities of the individual who has received the broadcast with those of the individual who has not. Sir Arthur Fforde, chairman of the governors of the British Broadcasting Corporation from 1958 to 1964, set down some thoughts on the ends and purposes of broadcasting in a private memorandum that was circulated to his senior colleagues in the corporation. He wrote that the main task of broadcasters is to show

what for the Christian is the Joy of a full citizenship of an adult city; the discovery, in the secular view, of Delight, of the touch-stone of an adult man-

²³ J. GALBRAITH, *THE NEW INDUSTRIAL STATE* 312-13 (1968).

²⁴ J. HALLORAN, *THE EFFECTS OF MASS COMMUNICATION WITH SPECIAL REFERENCE TO TELEVISION* 12-13, 30-31 (1964).

hood; and in both views, a courage, an *elan*, which, on the probability that, could we but understand it, the Universe would be seen to make sense, and not nonsense, enables the spirit of man, against the apparent odds, to speak the word YES to the all but intolerable menace of the NO.²⁵

A positive and affirmative view of broadcasting in the development of the individual might provide the best and severest practical test of the worth of the broadcasting firm.

SUMMARY AND CONCLUSION

To summarize and conclude, it seems clear that the firm is both a political entity and an economic one; its life is governed by quasi-religious beliefs concerning human individuals as well as by rational calculations of economy. These beliefs and calculations come together in the politics of the firm. The best number of broadcasting firms in a national economy is probably indeterminate on wholly rational grounds, although it appears that the number of firms need not equal the number of transmitters. The best size of a broadcasting firm is also probably indeterminate, given a licensing authority that does in fact regulate broadcasting in favor of the rural, the less literate, the poor, and the local. The rights to seek, receive, and impart information and ideas through broadcasting entail rights to govern the broadcasting firm. Although there are recognizable inequalities in the distribution of broadcasting services, some ways of alleviating the inequalities are at hand; the principles for doing so apply more to the work of the state than to that of the broadcasting firm.

²⁵ A. Fforde, *What is Broadcasting?* (private circulation), as quoted in E. WEDELL, *BROADCASTING AND PUBLIC POLICY* 279, 281-82 (1968).