

ALASKA LEGISLATURE SPECIAL COMMITTEE ON PERMANENT FUND

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Yet the accounts are inherently narrow, even if—as never happens—they comprehensively present every relevant fact about the public firm's activities. They show only what *has* occurred, not what might have occurred, or what might occur in the future. They do not present the range of social choices and trade-offs which society has had in the past and has now for the future. To that extent the accounts do not convey the genuine conditions for full social choices. Nor can they give a sufficient basis for evaluating what has happened. This is true even if the accounts are utterly complete and accurate.

In practice, the accounts often are incomplete, inaccurate, and have a checkered emphasis. Usually the financial aspects are treated as central in the enterprise's accounts. The commercial kinds of asset, income, profits, and pricing data take up most of the attention, and they are given as the main outcome of the enterprise's activity. This gives a basis for beginning to evaluate certain financial performance criteria. Yet even these data are controversial, since costs, depreciation, and productivity pose sophisticated measurement problems. Financial performance can be misrepresented in many ways—honestly or otherwise—by the choice of accounting definitions and methods. In any event, these magnitudes are often much too narrow to present the whole range of social effects of the public firms.

Accounts also include physical and social activities. The physical employment, production, allocation, and other outcomes naturally need exposure. In addition the pollutions, interactions, and other social effects of company activity are also part of an adequate social reckoning. Yet these are rarely reported fully or objectively. Also, such data suffer from representing only what *has* happened, without a full basis for comparing the possibilities. They also can be given in ways which slant their results or—as is often the case—simply omitted. Social effects are especially difficult to render in concrete measures, and they may be deliberately biased by the managers of the enterprise to fit their own purposes. Routinely, understandably, the enterprises will state their accounts so as to make their performance seem as good as possible. This is routine in the explanations which the firms give of their yearly results. These often match the tone, direction, and thinness of the annual reports of private companies. One understands why this happens: managers are human, and outside criticism is often paranoically hostile. Still, the fact remains that the accounts are often incomplete.

In general, the public enterprise's control over information about it is critical. Even when outside investigation is intense and sophisticated, the enterprise can influence the range and quality of what it must tell. The accounting requirements themselves often become a sensitive issue, part of the bilateral bargaining process between the firm and the supervising public agencies.

Fundamentally, full disclosure by the public firm is not efficient in any case. The enterprise's very being is premised on its carrying out social purposes without the full participation or expenditure of effort by the government itself. Therefore, outside review is bound to be partial. This usually tends to keep

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supervision of the more sensitive items from being complete. Instead, outside review tends to become periodic and fitful, rather than steady and thorough. To repeat, the thinness of outside supervision is both desirable (so as not to inhibit the firm) and subject to abuse.

The Conditions Affecting Accountability

I will now analyze the bilateral monopoly conditions, in which each side has special advantages and powers. On the side of the public enterprise itself there are several factors. *First* is its control of data on its own operations and plans. As noted, this can be not only thorough but also purposive and manipulated to maximize the firm's independence and security.

A *second* power is, paradoxically, the firm's ability to fail or otherwise impose *difficulties* upon the government. The firm's failure itself causes stress and a loss of public support for the government, because the officials share responsibility for performance. Short of failure, the firm can still impose drains on funds and public resources, or it can impose other kinds of difficulties upon the government. These can grow large, as a share of public expenditure and budgeting. Such problems cater to the widespread fears—groundless or otherwise—that public enterprises are increasingly drawing on public resources. Like public regulators of private firms in the U.S., supervisors of public firms can be injured if their wards are seen to perform poorly.

Third, a public enterprise often can simply outlast the minister who is endeavoring to impose special authority upon it. To this extent, the firm has added bargaining strength.

As for the supervisors, they have three specific advantages. *First*, they have control over finances. It is widely believed that the public agencies' control over capital to the public firm may be a critical element of control, because if the public firm can—or must—go to private markets for capital, it becomes more independent of control by public authorities. To that extent, the power of the purse may be great. Indeed, many public enterprises—especially those that are subsidized chronically in some degree—are heavily dependent upon their financial sources. Yet this is strongest only for the more conventional types of public firms, especially type 1 as noted previously. When a public firm is *not* capital intensive and required to fund large loans, it may be nearly or entirely free of this element of control.

Of course private market influences can be as restrictive as public-agency ones, and so a public firm's shift to private bond markets may simply exchange one set of outside controls for another. Many conventional public firms which rely on private capital markets are subject to very tight commercial restraints indeed.¹⁵ These limits are not so tight for the other types of firms, whose needs for capital—beyond what it can raise from its own cash flow—are relatively small.

Second, the government usually has other powers. These include the powers of appointment, of setting salaries, and of other kinds of sanctions. Some of these are political, taking the form of public reproofs, controversies, or assertions, rather than of directions or orders. But they can often be quite effective as economic levers on the firm, in forcing or inducing public firm managers to take the desired actions. Accounts may be a central vehicle for detailed supervision of the firm. But the supervisors have other, cruder tools, some of them very powerful indeed, in dealing personally with the managers.

Third, agencies usually have more authority when they supervise more than one public firm. This is clear from the parallel experience in regulating private firms, where one commission may find itself dealing only with one company.¹⁹ In such cases mutual dependence or even passivity by the commissions is a common result. By contrast, an agency which deals with three or five or even more public enterprises is often relatively free to take a tough line with one or the other of them, since it is not so dependent on any particular one.

These are only some of the conditions which influence the bilateral monopoly outcome between public agencies and the public firms which they attempt to supervise. Yet they are sufficient to show that the optimum package of controls and results depends very much on the conditions of the specific case. Solutions that would give the optimal accountability for a public firm in a utility industry with structural problems of adjustment may be quite different from solutions for a financial public firm or a social enterprise. Therefore, one begins with a full appreciation of the variety of possibilities, rather than trying to settle on one or even several types of public supervision as being best.

Experience and the literature do not yet give full, precise guides for accountability. Each case will continue to involve a process of conflict and change, shared interests and mutual evasion. Total accountability is neither possible nor efficient; supervision itself is costly, and it can damage as well as promote performance in the public interest. Accountability continues to be a basic unsolved problem for public enterprise, as it is for other policies.

Notes

1. For discussion of these objectives, see especially Joe S. Bain, *Industrial Organization*, rev. ed. (New York: Wiley, 1968); Tibor Scitovsky, *Welfare and Competition*, rev. ed. (Homewood, Ill.: Irwin, 1972); F.M. Scherer, *Industrial Market Structure and Economic Performance* (Chicago: Rand McNally, 1970); W.G. Shepherd, *Market Power and Economic Welfare* (New York: Random House, 1970); and Shepherd, *The Treatment of Market Power* (New York: Columbia University Press, 1975).

2. For surveys of these criteria for public firms, see Ralph Turvey, *Economic Analysis and Public Enterprises* (London: Allen & Unwin, 1971); and P.W. Reed, *The Economics of Public Enterprise* (London: Butterworth, 1973).

3. For recent discussions of these difficulties, see James R. Nelson, ed., *Marginal Cost Pricing in Practice* (Englewood Cliffs, N.J.: Prentice-Hall, 1964); William Vickrey, *Micro-Statics* (New York: Harcourt, Brace Jovanovich, 1964); Ralph Turvey, *Optimal Pricing and Investment in Electricity Supply* (London: Allen & Unwin, 1968); and C.J. Cichetti and J.L. Jurewitz, eds., *Studies in Electric Utility Regulation* (Cambridge, Mass.: Ballinger, 1975).

4. For extensive analysis of these losses, see Scherer, op. cit.; Bain, op. cit.; and Shepherd, *Market Power and Treatment*, op. cit. The issues are complex and warmly debated, but the expert consensus is in the range of 2 to 4 percent loss of GNP.

5. Analysis of these choices is given in Shepherd, *Treatment*, op. cit., and Clair Wilcox and W.G. Shepherd, *Public Policies toward Business*, 5th ed. (Homewood, Ill.: Irwin, 1975).

6. See also Shepherd, *Treatment*, op. cit., for further analysis.

7. Also, their "utility" characteristics often are only temporary, as the industry evolves: see W.G. Shepherd, "Entry as a Substitute for Regulation," *American Economic Review*, May 1973, pp. 98-105; and R.A. Posner, "Natural Monopoly and Its Regulation," *Stanford Law Review*, Feb. 1969. "Utilities" often evolve toward normal competitive conditions.

8. See Shepherd, *Treatment*, op. cit.; Wilcox and Shepherd, op. cit.

9. This is true even if their management and economic performance are as good as the situation permits; see for example W.G. Shepherd, *Economic Performance under Public Ownership: British Fuel and Power* (New Haven, Conn.: Yale University Press, 1965) and Pryke, op. cit.

10. There is no good comprehensive source on the forms of public enterprise. But see William A. Robson, *Nationalized Industry and Public Ownership* (London: Allen & Unwin, 1960); M. Shanks, ed., *Lessons of Public Enterprise* (London: Jonathan Cape, 1963); and the *Annals of Public and Collective Economy*, successive issues.

11. Surveys of the public corporation include Robson, op. cit.; and Richard Pryke, *Public Enterprise in Practice* (London: Macmillan, 1971).

12. On British experience in these directions, see Shepherd, *Economic Performance*, op. cit.; Pryke, op. cit.; and Chapter 6 of this book.

13. Again, British experience with this type is illuminating; see Shepherd, op. cit. and Pryke, op. cit.

14. For a pioneering analysis of these possibilities, see W.C. Merrill and N. Schneider, "Government Firms in Oligopoly Industries," *Quarterly Journal of Economics*, Vol. 80, no. 320, August, 1966, pp. 400-12.

15. For more on the following examples, and many other types, see Wilcox and Shepherd, op. cit., Chapters 19 to 22; and W.G. Shepherd, "Alternatives for Public Expenditure"; Chapter 9 in Richard E. Caves and Associates, *Britain's Economic Prospects* (Washington, D.C.: Brookings Institution, 1968).

16. The literature includes Robson, op. cit.; Pryke, op. cit.; A.H. Hanson,

Parliament and Public Ownership (London: Cassell, 1961); and C.D. Foster, *Politics, Finance and the Role of Economics: An Essay on the Control of Public Enterprise* (London: Allen & Unwin, 1971).

17. For analysis of these regulatory and antitrust issues, see Shepherd, *Treatment*, op. cit.; Wilcox and Shepherd, op. cit.

18. Foster's discussion (op. cit.) is especially instructive on the comparison between these types of control.

19. See especially Wilcox and Shepherd, op. cit., Chapters 13 to 18; A.E. Kahn, *The Economics of Regulation*, 2 vols. (New York: Wiley, 1971); and Almatin Phillips, ed., *Competition and the Regulation of Industry* (Washington, D.C.: Brookings Institution, 1975).

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Electric Supply (London:
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6

British and United States Experience

William G. Shepherd

In both Britain and the United States, public enterprise has long been an active matter for debate and experimentation. Practical experience in the two countries has followed certain similar lines, but there are also important contrasts.

The common impression is that public enterprises are extensive in Britain but rare in the U.S. This is incorrect. Both countries have a large and growing variety of public firms, both in industry and in social sectors. Many of the public enterprises are of the conventional sort, but the variety is increasing on both sides of the water. Also, the literature evaluating the experience in Britain has been voluminous. This experience needs to be appraised with special care, and with attention to emerging trends.

Basic Patterns

Many readers will be familiar with the main outlines of public enterprise in these two countries. But after decades of evolution, the actual patterns are quite complex and often different from the usual image.¹ Therefore I will begin with several basic points.

1. Both countries have had long experience with public enterprise, going well back into the nineteenth century. Yet the main growth in British public enterprise came just after World War II, while expansion in the U.S. since the 1920s has been more gradual and erratic. Partly because of this, public enterprise in Britain focuses closely on the "utility" sectors. By contrast, in the United States, the incidence of public enterprise is highly variable, and it approaches completeness only in a few of the utility sectors (postal service, water, and sewage). In utility sectors which offer a relatively even choice (e.g., other than urban services), Britain has chosen to have much public ownership, the U.S. to have little.

2. Both countries have had a low share of public enterprise in the mainstream of industry, finance, and trade. Yet both also have extensive *social* enterprises, in a variety of sectors.

3. In both countries, the public enterprises in utility and industrial sectors tend to be of the conventional type (recall Chapter 3), with total public ownership, a wide or even national monopoly of their industries, and a degree of

autonomy from direct government control coupled with funding directly from the public treasury. Social enterprises in both countries take a rather wider variety of forms. They too tend to be monopolies, but the degree of subsidy varies widely. Also the variety in the degree of monopoly and the geographical scope is great.

4. These two main types of public firms—conventional ones and social enterprises—usually display contrasting behavior. The utility firms tend to be run along commercial lines, being required to accrue enough sales revenues to cover all, or nearly all, their total costs (including a return to capital).² Social enterprises, by contrast, tend to be run with a high degree of public subsidy, often total subsidy, with little pretense at charging users amounts sufficient to cover costs. This contrast, between minimal and maximal subsidies, yields highly different patterns of behavior among the various enterprises. The middle range—of partial subsidies—which might be optimal for many of these enterprises, tends to be empty.

5. The main lines of management motivation appear to be relatively similar to those of comparable private firms. Also, the familiar managerial urges to grow and diversify seem also to operate in these public firms. In most essentials, the upper management and directors of these firms are identical to those in private firms. They are drawn from much the same pools of talent and are subject to much the same pressures on behavior. This is not to deny that there are some differences.

6. Perhaps what is most interesting to the readers of this book is that the economic criteria being applied to public enterprises in both countries have been improving markedly.³ Also, the ability to equalize the competitive conditions of these public firms in line with those of their private competitors has also been improving. In both countries, public firms and regulated private utility firms are under constraints on profits and price structures. These probably influence the economic results which both kinds of firms (private and public) achieve. There are also interesting contrasts between the profit *ceilings* imposed on private American utilities and the profit *floors* set under public utilities both in the U.S. and in Britain.⁴ The contrast between these two directions of limits gives some insight into the performance of public firms.

7. Public enterprises have a larger share of total national income and investment in Britain than in the United States. (This would be true of other European lands too; see Chapter 7.) Table 6-2, which we will discuss later, shows the main volumes. This flow of resources is often regarded as a burden on British economic performance, and it is true that total subsidies to public firms in Britain have been substantial, but the true volume of subsidies cannot be definitively measured. Complex opportunity costs (of capital, partially immobile resources, and public funds) must be arbitrarily estimated, and there are also unresolved accounting issues (of depreciation, capital write-offs, inventories, etc.). The main literature has grappled inconclusively with the problem,

clarifying the logic but reaching no reliable estimates. Yet close study suggests that a more efficient and equitable set of policies for these public firms would tend only to *revise* the patterns, rather than to shrink the total public firm share of national resources.⁵ In the U.S., also, public firms do absorb substantial resources, but there is little or no scientific evidence that this share is excessive.

8. In both countries the common tendency is for public firms to evolve away from their original social purpose as time passes. The standard shift from "active" to "passive" behavior is common (recall the Introduction and Chapter 3), although there are exceptions. This usually means an evolving of the firm toward strictly commercial lines of behavior, trying to cover costs and set prices much as private firms would. This shift is largely caused by external rules and pressure. There is also the usual broad tendency for the distributional incidents of the public firms' operations to become more regressive—or less progressive—as time passes. Such trends are common to every public program, and there are some exceptions among the public firms. Yet the tendencies are there.

In short, public enterprises in both countries offer a variety of technical possibilities and experience. Their performance depends both on pressures from outside and on internal constraints.

British Public Enterprises

The historical origins of British public enterprises have not been fully chronicled, but some account is given in several other sources.⁶ Here I have space to deal only with other main points. Table 6-1 includes the main public firms in Britain in utility, social, and other sectors. Table 6-2 summarizes their trends. They are an extensive group, although their role in the conventional manufacturing, financial, and service sectors is small. These public firms have become large users of capital resources, and they also draw certain subsidies. They are a significant element in the public finances of the country.⁷ They draw an even larger share of political debate.

Before 1900, U.K. public enterprises included the Post Office and several other public authorities operating social programs or enterprises. A scattering of municipal operations had also evolved. There followed the Port of London Authority in 1908, the first true public corporation, and then the Electricity Commission and Forestry Commission in 1919. Despite decades of earlier political strife about public ownership, it was not until the 1930s that a few major public firms were fully established: the British Broadcasting Corporation and Central Electricity Board (for bulk electricity) in 1926, and the London Passenger Transport Board in 1933. The London Board was the incubator for much of the people and policies which later came to dominate the postwar public firms in utility sectors.

By World War II, other specialized units included the Racecourse Betting

Table 6-1
Principal Public Enterprises in the United Kingdom

<i>Name of Enterprise</i>	<i>Service or Product</i>	<i>Origin of Present Firm</i>	<i>Degree of Public Ownership</i>	<i>Approximate Market Shares in Its Main Markets</i>
<u>Utility</u>				
Post Office	Postal	before 1850	100%	100%
	Telephone & Telegraph	by 1900	100%	100%
Electricity Council, and Central Electricity Generating Board	Electricity	1948 ^a	100%	100%
Gas Council	Gas	1949	100%	100%
British Railways Board	Railroad	1948	100%	approx. 10-60%
British Waterways Board	Waterways	1948	100%	approx. 30-60%
British Transport Docks Board	Ports	1948, 1963	100%	100%
National Bus Company	Bus Travel	1948, 1969	100%	approx. 50-100%
National Freight Corporation	Freight, Trucking	1969	100%	approx. 30-100%
London Transport	Transit	1933	100%	100%
British Airways	Air Travel	1946 ^b	100%	approx. 10-100%
<u>Financial</u>				
Bank of England	Central Banking	1945	approx. 100%	100%
Industrial Reorganization Corp.	Finance Mergers	1967-1971	100%	approx. 5%
<u>Industrial</u>				
British Petroleum	Oil Products	1920	51-70%	30%
National Coal Board	Coal	1947	100%	100%

Table 6-2
Trends of British Public Enterprise since 1950

	Years					
	1950	1955	1960	1965	1970	1972
<u>Investment</u>						
Gross fixed capital formation by public corporations						
Volume (£ million)	288	570	799	1,293	1,650	1,782
Share of U.K. total (%)	17.0	20.4	19.4	20.1	17.9	15.9
<u>National Income</u>						
Total factor incomes arising in public corporations						
Volume (£ million)	983	1,538	1,942	3,163	4,336	5,358
Share of U.K. total (%)	8.4	9.1	8.7	10.1	10.1	10.0
<u>Public Expenditure</u>						
Subsidies to various public firms and related programs						
Volume (£ million)	477 ^a	347	462	574	859	1,133
Expenditure (%)	11.8	6.3	6.3	4.1	3.9	4.2

^aSubsidies in 1950 went primarily to agriculture and food.

Source: U.K. Central Statistical Office, *National Income and Expenditure* (London: H.M.S.O., yearly), 1961 and 1973 editions.

Control Board (1928) and the British Overseas Airways Corporation (1939). Yet there was no public ownership or management of the core utility and manufacturing activities.

The war brought (1) extremely thorough public controls on industry, and (2) a marked deterioration of their physical capital. The wave of postwar nationalizations during 1946-1950 was politically long overdue, but it covered a series of devastated industries in a devastated economy. These firms had inherited a mass of direct controls and an extended, fresh experience in "coordination" from the war. The war made the act of nationalization more acceptable, indeed in such a rush that the other alternatives to the conventional public corporation—national corporations, monopolies, and Treasury-funded corporations—were scarcely mentioned. The aftermath of the war also ensured that there would be severe stresses on the operations of these firms.

Only utilities, plus the severely troubled coal industry, were included in this postwar extension of public enterprise. These firms have gone through three main periods since they were created during 1945-1948.⁸ The first was the decade ending about 1958. This was an interval of stress and disequilibrium for the entire economy and particularly for the public firms. Their behavior was

highly predictable. They were under pressure to maximize output, and most of them acquiesced. They also increased wages rapidly, and they began efforts at structural change and reorganization. The outcomes were mainly a degree of deficits, moderate rises in productivity, and debatable economic performance. As fuel and transport scarcities abated quickly in 1955-1956, the public firms were vulnerable because of their earlier stress on maximizing production. Therefore the first decade of public enterprise experience in Britain gave mixed results.

During 1958-1968 there were major changes. The coal, railroad, gas, and other industries accomplished important revisions in their allocation, structure, and economic criteria.⁹ Productivity tended to rise more rapidly. New increases in demand brought higher profits and clearer signs of good performance. By 1969, public enterprises in utility sectors were performing much better than they had seemed to do during 1948-1958, and this improvement appeared likely to continue.

Understanding of the economic issues also grew, in research and government circles. The economic literature rose from a trickle to a healthy flow, probing the criteria and performance of the coal, electricity, gas, and railroad enterprises. Research capabilities in the firms themselves and in the supervising ministries also improved, especially with the work by Ralph Turvey on electricity and Christopher Foster on transport. At the House of Commons the Select Committee on the Nationalised Industries has since 1955 mounted a splendid series of hearings and reports on the firms and on general issues. By 1961 these had led the government to define the criteria for public firms much more rationally than before. The standards have evolved to include the opportunity cost of capital and price structures, closely fitting the best U.S. literature on public pricing.¹⁰ Indeed, British theory and—especially—practice are fully as good, under public enterprise, as one finds in any setting in the U.S.

This good practice required a nice balance between the firms' independence and outside guidance by the government. By 1970 a careful, even sophisticated, set of supervisory arrangements had been worked out between public firms and their ministries. There was autonomy but also a responsiveness to larger interests. Some "social" activities of the firms were even costed separately and compensated by the Treasury.

There followed a difficult period of erratic changes during 1970 to 1975, when new stresses were laid upon the public firms. These destroyed the previous balance. The most basic political intervention applied (1) strict price controls, and (2) additions to wage increases. Though these were politically helpful in the short run, they plunged the public enterprises into severe financial deficits. The long-run price structures and investment policies had been evolving towards more efficient patterns, but these gains were overwhelmed by the sheer size of the new financial stresses during this period. Only in 1974-1975 did sharp price increases allow most of these enterprises move toward restoring the financial stability which

had been attained in the 1960s. Whatever the basic economic effects of this episode, it has demonstrated the vulnerability of the public firms to short-run political manipulations.

The public firms were frequently said to be investing too much.¹¹ The criticism was plausible: their volume of investment was large and growing, and the cost of investment funds to them was below private levels. There was indeed some tendency for the firms to invest their way out of difficulties. The "test" rates of return used in screening projects were often low, or were not met at all. Electricity officials, particularly, often leaned toward capital-intensive technologies (especially nuclear power) that were not economic.

Yet no such general waste of capital by the public firms has been reliably established. The greater bulk of the investment for reorganization and growth has probably been efficient by any valid criteria. Excess investment may, if anything, be a more serious problem in *private* regulated utility firms.

Both in its utility and social enterprises, Britain has been developing increasingly sophisticated price-structure analysis, some of which is now unequalled anywhere in the world. The French experiments in marginal-cost pricing have been developed and applied even more thoroughly in Britain.¹² By now, pricing in telephones, electricity, gas, much of the railroad system, and other public enterprises does follow marginal-cost—that is, broadly, efficient—patterns with reasonable fidelity. Moreover, it is backed up by a body of sensitive analysis of the basic principles.

The broad experience of British public enterprises is that performance can be equal or better than what private enterprises would probably yield. This has involved a complex set of guidelines, good managers in the firms, and a fairly delicate balancing of external supervision with autonomy for the public firm. Such a balance has been achieved over fairly long periods of time. It has been achieved despite the high complexity of relationships among public firms, such as among coal, electricity, and gas in the energy sector.

Most of the public firms have been created with extremes of (1) degrees of public ownership, (2) direct financing, (3) degrees of monopoly, and (4) national scope. They are the conventional type; indeed, they have served as a model for standard public corporations elsewhere.

Ownership is totally public in all but a few peripheral cases. Moreover, investment capital has mostly been supplied directly by the Treasury, particularly during the peak years of reorganization (about 1956-1965). There is now some selling of public enterprise bonds in U.K. and European markets, but this is recent and not complete.

The government has created and maintained complete intraindustry monopoly positions for most of these firms—just as regulation commonly does in the U.S.¹³ This is especially extensive and vigorously defended in the case of the Post Office (telephone, telegraph, and postal service).¹⁴ There are supplementary exclusions (e.g., of foreign coal) in some cases, yet some public firms—e.g.,

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British Airways, and British Road Services (about 30 percent of trucking)—face intense competition in the major part of their activities.

The major public firms are also national in scope, as Table 6-1 shows. This includes the British Steel Corporation, which was made not only a dominant firm but also a "unified" national producer, capable of internalizing much of the structural problems in the industry. During about 1955-1965 there were experiments in decentralizing these nationally based firms, especially in gas, railroads, and electricity. The outside pressure to do this was largely ideological. It has abated, as the need for direct coordination within these small-nation firms has grown clear.

Many British public firms have tended to be loaded with social burdens, which limit their ability to exploit their monopoly positions. During the period up to 1970, this applied perhaps a healthy constraint, forcing the public firms to strain for good performance and efficiency in order to avoid deep financial deficits. During 1970-1975 the financial burdens have simply been multiplied too far, and the resulting financial stresses have showed signs of inducing demoralization in the public firms.

There has also been a continuing effort to separate "commercial" from "social" aspects of operation in these firms.¹³ "Commercial" operations involve primarily the producing and selling of outputs under normal market conditions. The "social" aspects have involved such things as keeping unprofitable coal mines in operation in order to mitigate the social impacts of closure, and altering the price structure and wage levels in order to yield benefits elsewhere in the economy. In principle, drawing lines between the two is desirable, in order to isolate the public element for direct subsidy and to protect the integrity of commercial operations from erosion. In practice it has not been easy. The efforts to isolate the public elements for subsidy have had limited success. In coal, railroads, and electricity modest estimates for subsidies were developed in the 1960s. But these efforts have been swamped since 1970 by the deeper financial deficits (uncompensated) caused by the outside limits on the firms. The main technical problem is the difficulty of identifying (1) the difference between public and private policies, and (2) actual cost levels.

It has also emerged that diversifying has been important to the managerial success of the public firms. Until 1965, virtually no diversifying was permitted, even for public firms trapped in shrinking industries. Since then there have been modest shifts, especially by firms in static industries such as coal. These have tended to extend outward from pre-existing technical capacities of the firm. There has been little pure diversification for its own sake. But even these limited shifts have permitted the firms in shrinking sectors to develop new lines and to attract resources so as to improve appreciably the long-range health and incentives of the firm.

There was one marginal experiment with public investment banking during 1963-1971, and another is being considered in 1975. The IRC was allotted £150

million in 1965 to promote changes toward more efficient industrial structure and management. As a small, professional group, IRC mainly encouraged mergers, often by providing "soft" loans. Some of the mergers sharply increased concentration. IRC's visible activities and capital commitments were carefully held to the minimum, and it took no sizable shareholdings.

Therefore IRC did not even remotely explore the full range of investment bank activities (see also Chapter 8). And IRC tended more to increase the degree of monopoly than to reduce it. It also moved sharply to avert a takeover by a foreign firm in the bearings industry, but otherwise it did not treat sovereignty as a criterion. Altogether, IRC was a small, narrow, and debatable experiment.

A recently created National Enterprise Board would be a full investment bank, along lines of the Italian IRI. But its development and effects are still speculative, and it will be operating in a hostile industrial and financial setting.

In sum, Britain remains committed mainly to conventional public firm treatments. Their guidelines and performance have been markedly improved, perhaps about as far as their conditions permit. Prospects for a more flexible public investment bank are still unclear.

U.S. Public Enterprises

There has always been a variety of public enterprises in the United States, and the extent now is growing.¹⁶ In the older times, a variety of public projects and support could be found in many cities and on the federal level. In the early nineteenth century there was a good deal of state support for economic development, including railroads in Michigan and other states and a variety of public works with commercial operations. From 1865 to 1910, a group of newer "utilities"—electricity, telegraph, telephone, railroads—came to maturity under fiercely protective private ownership. Telephones and electricity remain as the leading cases of private—or mainly private—utility ownership. This has made public enterprise seem peripheral, but it has been central in other sectors. River-valley development, social sectors, and nuclear power have involved public firms. More recently, urban growth and change have caused urban enterprises (e.g., transit, water) to become increasingly public and increasingly important. Therefore the growth of public enterprise has been weighted toward (1) certain special sectors, (2) urban enterprises, and (3) social enterprises of many kinds. There has been no coordinated or purposeful program of extending public enterprise, but rather a grass-roots evolution of many kinds of public firms and programs. In some cases the truly "public" element is small.

The basic patterns are reflected in Tables 6-3 and 6-4. Most public firms are in utility, industrial, and financial sectors. There is less public ownership in utility sectors than is common in other countries. Also, weapons production is largely private. Still, there is a wide and growing variety of public firms, ranging from

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Table 6-3
Local, State, and Federal Public Enterprises in the United States

Extent of Public Enterprise	
<u>Utilities</u>	
Transit (bus, subway, trolley, commuter lines)	Most large cities
Water and sewage	Virtually all large cities
Garbage disposal	Most cities
Electricity	Many smaller cities, several large cities (e.g., Los Angeles, Omaha)
Ports	Most port cities
Airports	All large cities
<u>Social Units</u>	
Schools	All cities and towns
Libraries	Virtually all cities and towns
Parks, golf courses, pools	Virtually all cities and towns
Sports stadiums	Many cities
Yacht clubs	Many cities
Amusement parks	Some large cities
Competition	Most cities and towns
State	
Prison facilities	All states
Insurance services	Unemployment: all states; Workman's Compensation: 18 states
Parks	Most states
Labor retailing	16 states
Electricity	Nebraska, New York Power Authority
Ports	Port of New York Authority (transport and urban facilities); New Orleans; other ocean ports
Yield roads, bridges, and tunnels	29 states
Health care	Mental and old-age institutions
<u>Federal</u>	
Electricity	Expenditures in 1973
Forest service	Corps of Engineers, \$1,803 million; Bureau of Reclamation, \$519 million; Tennessee Valley Authority; others \$11,679 expenditures; \$1,391 subsidy
Land	Forest Service, \$320 million; National Park Service, \$82 million
Commodities stockpiles	Value, \$653 million

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Table 6-3 (cont.)

<i>Federal</i>		<i>Expenditures in 1973</i>
	<u>Social Units</u>	
	Transport	Alaska and Panama Canal railroads; Military air and sea transport services; St. Lawrence Seaway
	Loans and guarantees	About 100 agencies, includes housing, farming, rural electricity and telephones, Export-Import Bank, Small Business Administration
	Insurance	Many agencies: banks, housing, crops, shipping, foreign investment, stock markets, veterans' life and annuity insurance, old-age pensions
	Health care	Medicare, Medicaid, veterans hospitals
	Industry	Various: Government Printing Office, Military production, etc. (World War II aluminum, steel, rubber, and other plants)

uranium enrichment plants, commuter train lines, the Port Authority of New York, public broadcasting, and public power in Nebraska and New York, to public universities and various medical and insurance programs. The continued spread of urban and social problems is likely to give public enterprises even more prominence.

Table 6-4 illustrates the variety of control and sponsorship of these public firms in the United States. Some have low subsidies and very high control; others are the reverse. There is quite a large variety of public firms toward the lower left hand corner of Table 6-4; these tend to have low public benefits relative to public costs. Yet there are also many public firms toward the upper right, where public net benefits are likely to be large.

Conventional Public Firms

Many U.S. public firms are of the conventional form (recall Chapter 3), with a high degree of public ownership and monopoly, a static or "sick" industry condition, some public utility aspects, and dependency on the state for much capital and current subsidy. There is also the common distinction between largely commercial public firms, on one hand, and social enterprises, on the other. Many utility public firms follow closely along commercial lines, in pricing and profit policy. The social enterprises, by contrast, tend to be highly subsidized and to have a variety of noneconomic objectives.

Competition by public firms is only infrequently used. Instead, most public enterprises are assigned special sectors or functions. Competition was deliber-

Table 6-8

Selected Public Enterprise Activities in the United States, by Approximate Degree of Public Control and Subsidy

	Degree of Effective Public Control		
	Slight Control	Partial Control	Full Control
No Subsidy	Port of New York Authority	State liquor stores National land management	Municipal utilities (water, sewage)
Degree of Public Subsidy	Federal Reserve Board	Amtrak	AEC enrichment plants
	FHA housing program	SBA programs (including minority support)	U.S. Government Printing Office
	Tennessee Valley Authority	FAA programs	Social Security
	Performing arts centers	Airports	Municipal parking facilities
	Sports stadiums	Highway construction and maintenance	Municipal transit
	Public housing	State courts	Federal courts
	Medicare	Local courts	Public law programs
	Medicaid	Federal maritime program	Child-care programs
	Public universities	Mental hospitals	Primary education
	SST program	State and local law enforcement agencies	
	Military R and D contracting	Prisons	
	Veterans Administration hospitals	Corps of Engineers	
	Weapons purchasing and management	Census Bureau	
Full Subsidy			

ately fostered during 1930 to 1940 in parts of the electric power sector. TVA and the Power Authority of New York sharply improved performance in contiguous private utilities, by forcing lower prices. This has been echoed in hundreds of small municipal systems. Such competition worked best when the public unit could threaten to enter the private firm's markets. When geographical limits were set on the public firms after 1940, most of the competitive effect disappeared.¹⁷

By and large, public enterprises in the U.S. reflect a national custom—arising partly from frequent corruption in local politics during 1865-1900—of relying mainly on indirect taxes and incentives to accomplish "public purposes," rather than on direct public ownership and operation. This is especially evident in weapons purchasing, in the oil industry, and in shipbuilding. It is widely influential, and it explains the limited extent of public enterprise in utility, manufacturing, and financial activities. Instead there is a maze of tax and incentive programs, many of which have dubious effects.¹⁸

The experience of the main body of public enterprises is mixed, and the variation is very wide. Many of them have a high degree of monopoly. Many of them sell primarily to the middle classes and to private businesses (the Tennessee Valley Authority has become a good example of this). Many of them have a residuary, "last-resort" role, in which they provide service to less lucrative customers whom private firms choose not to supply (Medicaid is one example).

Many public firms in the U.S. also tend to be passive rather than active (recall Chapter 3), and become increasingly so as time passes. Few of them apply deliberate price discrimination which transfers income from relatively rich users to relatively poor ones. Indeed, many public enterprises in the United States tend to have a regressive incidence, by providing subsidies mainly to middle- and upper-income users (the postal service and Amtrak are examples).

These negative patterns are not universal, and there are hundreds of remarkably efficient and innovative public enterprises in the United States. Yet the negative influences appear likely to continue. The reorganization of eastern U.S. railways, presently occurring, appears likely to involve a high degree of public subsidy and eventual public ownership for operations whose benefits go primarily to middle- and upper-income groups.

There are, however, instances of more favorable results.¹⁹ The internal efficiency of most public enterprises has not generally been low. This fits experience elsewhere. There has also been no clear tendency toward abuse or deliberately inequitable policies under public enterprises. This contrasts with the more specific programs for such sectors as oil, shipping, weapons, etc. Many public firms have provided genuine public benefits in their initial years, during which their original objectives have been sharp and strong. Thus, the Tennessee Valley Authority accomplished major social changes during its first two decades, before more conventional tendencies set in. Also, many public enterprises do implicitly avert certain negative results which would probably occur under private enterprise, with or without regulation. Thus, there has been relatively

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of the general inefficiency and overuse of capital which may have occurred
in regulated private utilities (under the "rate-base" effect) and in other
enterprises under special government subsidies and incentives (e.g., shipbuilding
and weapons supply).²⁰ Therefore many urban public enterprises, for example,
have better relative social yields than may seem to be the case.

Many public firms have also adopted efficient pricing policies which are at
least as good as their private counterparts. The Tennessee Valley Authority may
not have led the way with marginal-cost pricing, yet urban public enterprises and
other electricity systems have moved at least as fast as private systems toward
efficient pricing under complex conditions of costs and market interactions.²¹

Social and Urban Enterprises

These have had generally more positive results. They have evolved despite an
unfavorable climate of public understanding, rather than proliferated freely
beyond efficient limits. They do usually have a high degree of monopoly and,
often, extensive subsidies. Schools, jails, courts, and housing have absorbed a
large share of public resources. Yet their performance has on the whole been
relatively strong (prisons being perhaps the obvious partial exception). Their
ability to supply direct public benefits is greater and has been more thoroughly
effective. They have been involved more closely with social equity as an
objective, and in many cases they have yielded clear gains. There have been
errors and losses, but these are coming increasingly under clear analysis and
changes are being made toward improved policies.²² Urban enterprises in
particular have begun to allow for interactions among the parts of urban
transport and social systems. This has permitted an increasing degree of efficient
usage and system capacity. Forming an accurate impression of these changes is
difficult, because certain inefficiencies are clearly evident. The enterprises also
commonly have a high degree of monopoly, in many cases greater than would be
optimal. Schools have particularly tended to suffer from monopoly characteris-
tics at the primary and secondary level. Parts of the "correction" system have
had pathological results. There have also been failures in charging equitable
prices to the users of services.

On the whole, the range of public enterprises in the U.S.—especially the social
enterprises—comprise a remarkably wide and changing set of experiments in
public enterprise. Many of the results are predictable and similar to foreign
experience. There is no clear pattern of defective results in U.S. public firms.

Parallels and Contrasts

One can draw several general lessons and contrasts. I will consider six of them
and then offer some final remarks.

1. In both countries, the motivation and performance of managers appears to be roughly the same as it is in comparable private firms. This is most evident in the utility enterprises, but it is also generally true. This means not only that the general degree of efficiency in management operations has been about the same, but also that the directions in which public firm management can be expected to move are relatively steady and predictable. It is largely the differences in incentives and surroundings that may induce public firm managers to give distinctive results. As we have seen, these managers operate in a public firm setting which has a variety of pressures and limits. Many of these have had predictable results.

2. The special inducements affecting the cost of capital probably do have some influence on the outcomes. "Cheap" capital may marginally have encouraged some overinvestment, at some times. But such inducements are not working in isolation. Other inducements are also at work, often more strongly. It has been important for public agencies to get the cost and availability of capital as optimal as possible. But that is only the first step toward achieving an efficient and fair set of public firm results. In addition, public officials must deal with the personalities, the special technical conditions, and the changing social objectives affecting their public firms. The control of capital to the public firms is not a magic wand, nor a close lever of control.

3. The use of capital has been probably more closely limited and optimal in British public firms than in their U.S. counterparts. This partly reflects the fact that the United States has been more capital-rich than Britain, and therefore capital has been more freely used in every direction in the United States. Yet British public enterprises have also gone much further in developing efficient pricing structures and in minimizing the absorption of capital.

4. Another contrast is in the degree of public scrutiny. Most British public firms have been more closely monitored than most American ones. This too may reflect the differing relative scarcities, with British social interests being more closely limited by a simple scarcity of resources. Still the difference is there, and it has permitted a greater variety of experience in U.S. firms than of those in Britain. Yet this U.S. experience has been much less closely analyzed; the literature is very thin.

5. Neither country makes systematic use of public investment banking, or of public firms as competitors and "pace-setters," or of partial public ownership carefully set to minimize the commitment of public capital (see Chapter 8 also). This partly reflects the practical difficulties which arise in trying to fine-tune such a treatment in a rugged and hostile political setting. It also reflects a preoccupation with older concepts especially the equation of public enterprise with *ownership* and with *utility* sectors.

6. It appears that the degree of innovation by public firms is not systematically less than in private regulated firms. This holds both in the United States and Britain. It conflicts with the traditional notion that public firms are slow to

adopt new technology. But it does faithfully reflect the fact that regulation provides special inducements to private enterprises which differ in direction from some of those applying to public enterprises. Indeed, innovation may tend to be more rapid in public firms under certain conditions, perhaps even to excess.²³ At any rate, the older conventional belief about innovation does not appear to have clear support.

On the whole, British and American experience suggests that the tendency is for public firms to have more monopoly power than is appropriate, on economic and social criteria. (The same is true, of course, of many *private* firms as well.) There is also a tendency to have too high a degree of public ownership of the given firm, compared to the minimum amount necessary to achieve the public interest. Often partial public ownership will suffice or be superior. There is also a tendency toward less progressive pricing as time passes, as is also true of other policies. Not surprisingly, it has been difficult for public firms to develop deliberate price discrimination to reduce inequality. Also, public enterprises of the conventional sort tend to follow commercial lines more strictly as time passes. Whatever its value for achieving strict economic efficiency, this tendency toward commercial lines does tend to narrow and rigidify the social outcomes of public firms. This narrowing does not appear to be so true of social enterprises, in practice. They are much more readily subsidized, often beyond what is optimal.

In short, public enterprises in the U.S. and Britain are subject to the tendency of policies to become more passive, as time passes and the customer mix evolves. Many public firms have, however, avoided this shift. The bundle of public enterprises also evolves, partly in line with the changing set of social objectives. But there is no assurance that the evolution of public enterprises has closely fitted the public needs. Seen broadly, British and American experience may roughly approximate the optimum about as well as is done in other countries. But there is little clear evidence either way.

Notes

1. The British literature is extensive. Basic sources include: W.A. Robson, *Nationalised Industry and Public Ownership* (London: Allen & Unwin, 1960); W.G. Shepherd, *Economic Performance Under Public Ownership: British Fuel and Power* (New Haven, Conn.: Yale University Press, 1965); Richard Pryke, *Public Enterprise in Practice* (London: Macmillan, 1971); Ralph Turvey, *Economic Analysis and Public Enterprise* (London: Allen & Unwin, 1972); and the long series of reports by the Select Committee on the Nationalised Industries, House of Commons, various years. The literature on U.S. experience is much less thorough, but see Clair Wilcox and W.G. Shepherd, *Public Policies Toward Monopoly*, 5th ed. (Homewood, Ill.: Irwin, 1975); Richard Hellman, *Government*

Competition in the Electric Utility Industry: A Theoretical and Empirical Study (New York: Praeger Publishers, 1972); the useful chapter by Albert S. Abel in W.G. Friedmann and J.F. Garner, eds., *Government Enterprise: A Comparative Study* (New York: Columbia University Press, 1970); and, earlier, John Thurston, *Government Propriety Corporation in the English-Speaking Countries* (Cambridge, Mass.: Harvard University Press, 1937).

2. The official criteria for profits in U.K. public firms are discussed in C.D. Foster, *Politics, Finance and the Role of Economics* (London: Allen & Unwin, 1971), and in other sources cited there, especially the Select Committee reports.

3. See Shepherd, *op. cit.*; Pryke, *op. cit.*; Turvey, *op. cit.*; Foster, *op. cit.*, and the Select Committee reports for descriptions and critical evaluations of these criteria.

4. See W.G. Shepherd, *The Treatment of Market Power* (New York: Columbia University Press, 1975), chapter 9, for a partial analysis of the contrasting effect on innovation. See also A.E. Kahn, *The Economics of Regulation*, 2 vols. (New York: Wiley, 1972), and Wilcox and Shepherd, *op. cit.*

5. One such estimate is in W.G. Shepherd, "Alternatives for Public Expenditure," Chapter 9 in Richard E. Caves and Associates, *Britain's Economic Prospects* (Washington, D.C.: Brookings Institution, 1968).

6. Including Robson, *op. cit.*, and Thurston, *op. cit.*

7. Again, this is clear in Shepherd, "Alternatives for Public Expenditure," *op. cit.*

8. For evaluations of the conventional public firms during 1948 to 1968, see Pryke, *op. cit.*, and Shepherd, *Economic Performance*, *op. cit.*

9. These improvements reflected both internal choices and research (especially in coal and electricity), and guidance from outside. The ministries' and Treasury's analysis improved. The Select Committee on the Nationalised Industries held extensive hearings and issued generally rational reports on the public firms, one by one (returning to each one about every 5 or 6 years). And the Prices and Incomes Board formally investigated, even more lucidly and critically, the pricing policies of most of the public firms during 1967-1971 (some of the reports are condensed in Turvey, *Economic Analysis and Public Enterprises*, *op. cit.*).

10. This is reviewed in Kahn, *op. cit.*, and Wilcox and Shepherd, *op. cit.*, Chapters 13-18. See also W.G. Shepherd, "Marginal-Cost Pricing in American Utilities," *Southern Economic Journal*, July 1966, pp. 58-70.

11. The criticism was staple fare before the Select Committee, which explored the issue repeatedly and in detail. For these and other references, see Shepherd, *Economic Performance*, *op. cit.*, and Pryke, *op. cit.*

12. See Turvey, *Optimal Pricing*, *op. cit.*, and H.M. Trebing, ed., *Utility Pricing* (East Lansing, Mich.: Michigan State University Press, 1976, in press); J.R. Nelson, ed., *Marginal Cost Pricing in Practice* (Englewood Cliffs, N.J.: Prentice-Hall, 1964); and Ralph Turvey, ed., *Public Enterprise*, 2nd ed. (London: Penguin, 1971).

and Empirical Study
by Albert S. Abel in
1968. A Comparative
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Committee reports.
J. Foster, op. cit.,
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13 On this comparison, see Wilcox and Shepherd, op. cit., Chapters 13-23.

14 Yet there is little vertical integration, by comparison with the complete monopoly maintained by the Bell System in nearly all U.S. telephone equipment production; see Wilcox and Shepherd, op. cit., Chapter 16.

15 The Select Committee has considered this at length, in successive reports during the 1960s. See also R.S. Edwards and H. Townsend, *Business Enterprise* (London: Macmillan, 1958), Chapters 13-22.

16 See Wilcox and Shepherd, op. cit., for a partial survey. There is no comprehensive source.

17 See Hellman, op. cit., for a favorable appraisal of the effects of public competition.

18 See Wilcox and Shepherd, op. cit., Chapters 24-26; Almarin Phillips, ed., *Competition and the Regulation of Industry* (Washington, D.C.: Brookings Institution, 1975); and U.S. Joint Economic Committee, *The Economics of Federal Subsidy Programs* (Washington, D.C.: U.S. Government Printing Office, 1973).

19 See Hellman, op. cit., for one favorable appraisal.

20 On the rate-base effect and other yields of regulation, see Shepherd, *The Treatment of Market Power*, op. cit., Chapter 9, and A.E. Kahn, *The Economics of Regulation*, 2 vols. (New York: Wiley, 1971).

21 See W.G. Shepherd, "Marginal-cost Pricing in American Utilities," op. cit.; see also C.J. Cicchetti and J. Jurewitz, eds., *Studies in Electric Utility Regulation* (Cambridge, Mass.: Ballinger, 1975), especially Chapter 3.

22 This is reflected in S.J. Mushkin, ed., *Public Prices for Public Products* (Washington, D.C.: Urban Institute, 1972).

23 See Shepherd, *Treatment*, op. cit., Chapter 9, for an analysis of the probable effects.

Chapter 2 JEROME W. MILLIMAN

Beneficiary Charges— Toward a Unified Theory

UNTIL more work is done on the theory of beneficiary charges in relation to the theory of demand generation for public services, empirical work on, and policy prescriptions for, user fees will lag and remain uncertain. This conclusion was drawn from an extensive review of the literature. The more I examined the literature, the more I realized that the issue of beneficiary charges and efficiency had not been worked out well in the theory.

The literature gaps have to be set alongside the many current opportunities for application of direct user charges. Possibilities for the application of beneficiary charges as an efficiency measure are literally everywhere—to ration airsheds, parks, water quality, highway use, city streets, urban public services, public housing and renewal, college facilities, hospitals, doctors, and so forth.

However, greater application of beneficiary charges to increase efficiency in the allocation of resources is still only a contingent possibility. It must wait on greater revenue sharing, and a clearer federal role in income maintenance. Until these large forward steps are taken by the federal government, the relation of beneficiary charges to efficiency will be subsidiary to questions of user charges and equity, or

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Note: This chapter is adapted from Milliman's article, "Beneficiary Charges and Efficient Public Expenditure Decisions," in *The Analysis and Evaluation of Public Expenditures: The PPB System*, Papers submitted to the Subcommittee on Economy in Government, Joint Economic Committee (91st Cong., 1st sess., 1969), Vol. I, pp. 291-318.

user charges and revenue growth. The literature is also deficient in its coverage of this linking of revenue sharing and income maintenance to both the equity and revenue potential of charges.

Three major strands of economic literature deal with the question of beneficiary charges: that on public finance, on public utility, and on welfare economics relevant to marginal-cost pricing. To my knowledge, no one has pulled these three strands together to present a unified theory of beneficiary charges. The arguments advanced for such charges are quite varied, often fragmented, and sometimes inconsistent. Three major arguments have been used by advocates of beneficiary charges: (1) *equity*, that is, fairness in charging beneficiaries; (2) *revenue production*; and (3) *efficiency* in the use and production of public services.

The Public Finance Literature

The economic analysis of public expenditure decisions has advanced a great deal in the last two decades. Public finance, which earlier was largely concerned with problems of economic stabilization and with the "finance" problems of how to levy taxes and sell bonds, has gradually turned to these long-neglected topics: what public goods and services should be produced and how; how much should be invested; and how public goods and services, once produced, should be distributed. A large body of literature now exists on the evaluation of "systems" approaches to public investment decisions. The techniques of benefit-cost analysis, program budgeting, systems analysis, cost-effectiveness analysis, and operations research are becoming accepted as standard tools to aid public expenditure decisions.

With these developments, it would seem that analysis of production and distribution of public goods and services would have come of age. As one studies the theory and practice of the production and distribution of public goods and services, however, large gaps are apparent in the knowledge of demand and supply relationships. On the supply side, there has been trouble in measuring outputs, and therefore we have very few empirical production functions expressing the technical relationships between factor inputs and product outputs. We have even fewer cost functions with which to determine the optimal combination of factors to produce given outputs. As a result, we have

4. The literature is also deficient in its use of sharing and income maintenance to justify charges.

Economic literature deal with the question of public finance, on public utility, and on marginal-cost pricing. To my knowledge, no one has tried to present a unified theory of the arguments advanced for such charges, and sometimes inconsistent. The arguments used by advocates of beneficiary charges are: (1) charging beneficiaries; (2) repaying the use and production of public

Public Finance Literature

Public expenditure decisions has advanced over the decades. Public finance, which deals with the problems of economic stabilization and the use of taxes and bonds, has been a long-standing topic: what public goods should be produced, and how much should be invested in them; once produced, should they be sold, or how much should be invested in them; how much should be invested in them; how much should be invested in them. The techniques of public finance, such as budgeting, systems analysis, cost-benefit analysis, and research are becoming accepted as standard tools for public finance decisions.

It seems that analysis of production and distribution of public goods and services would have come of age. However, large gaps are apparent in our knowledge of the supply relationships, on the supply side, and therefore in our ability to determine the optimal level of production. As a result, we have

often relied on expenditure functions per capita to describe relations between costs and outputs. Changes in expenditures are clearly ambiguous numbers in the absence of independent measures of outputs. Moreover, we often tend to count expenditures on inputs as measures of output.¹ It is also evident that the demand for public services is often an ambiguous concept, and that scanty information exists on how well political processes reflect preferences of consumers and voters.

These knowledge gaps on both the demand and supply aspects of the production and distribution of public goods and services are clearly related to the question of beneficiary charges. On the one hand, if we do not have solid knowledge of outputs, costs, and demands, then attempts to determine optimal prices, charges, and taxes for these goods and services are clearly in a precarious state. On the other hand, such prices and charges might be helpful as a form of consumer voting that would supply (in many cases) valuable information about consumer demand. For example, if a public good is supplied at a zero price, we can expect that excess demand will develop, with "cries of alarm" suggesting that more production is needed. Yet we may have little information about the value of this service and the legitimacy of its claim on resources versus alternative claims on the same resources.

With a few exceptions, the public finance literature on beneficiary charges deals primarily with the question of the benefit approach to taxation. The question of how to levy fees or user charges is largely ignored; some of the best-known public finance texts do not even treat the subject. In general, the stress is on the equity and efficiency gains of having taxpayers pay for benefits received. However, these gains are still considered within the context of how to finance expenditures, and benefit taxes are a "fair" way to do it. Problems of optimal resource allocation and efficiency are introduced only indirectly and are usually more concerned with the longrun questions of investment in public facilities, rather than with the efficient use of facilities.

The equity aspects of benefit taxes are viewed generally as a matter of simple justice; i.e., users of a public service should pay for its costs when the benefits do not spill over to other people. For example, the benefits of irrigation water service provided by the Bureau of Reclamation accrue to the irrigators, and it would be "unfair" to require the public at large to pay for this service. By contrast, free hospital service to the poor might justify subsidies because of indirect

benefits to the community at large. The usual textbook discussions do not elaborate on *which government community should subsidize the service—federal, state, or local.*² The answer would probably be: the community that receives the indirect benefits.

The principle that subsidies should be given on the basis of indirect benefits received is probably most clearly exemplified in relationships between local and federal levels of government. When benefits are provided to one group or region and the costs are borne by other areas or groups (who do not receive either direct or indirect benefits) income transfers are involved. Such redistribution must be justified on grounds *other than* the benefit principle of taxation. Yet it is very seldom argued in theory that local publics, for example, ought to share more fully in federal programs (such as flood control or urban renewal) because most of the indirect, as well as direct, benefits reside locally. The feeling seems to be that benefits which are widespread are automatically national in character.³ The same point is made below in reference to collective consumption goods: the public character of such goods is often attributed to the nation as a whole when, in fact, collective consumption may be highly restricted to a given locality or user class. For example, how widespread is the collective consumption of the services of a lighthouse or those of a local police force?

In the traditional public finance literature, the efficiency aspects of benefit taxes (charges) are largely limited to the longrun questions of the "proper" investment in capacity or the optimal scale of service. Thus questions of how best to ration service from existing capacity are seldom discussed. The investment in public facilities is considered justified if consumer preferences (in the case of direct tolls) or taxpayers' preferences (in the case of benefit taxes) return funds to pay for the cost of the facility. The literature on cost recovery and cost reimbursement for public investment takes its rationale from the questions of equity and longrun efficiency discussed here. If the cost is not to be recovered from the beneficiaries, either an error has been made in the original investment, or (if the beneficiaries are not required to pay) there would be a transfer of income from other taxpayers to the beneficiaries of the service. If "profits" are earned, then the investment should be expanded.

Moreover, so the argument goes, if we do not require cost re-

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The usual textbook discussions do not say that the community should subsidize the project. The answer would probably be: the project benefits.

should be given on the basis of individual benefits, most clearly exemplified in relation to levels of government. When benefits and the costs are borne by other people (either direct or indirect benefits), then redistribution must be justified on the principle of taxation. Yet it is very difficult, for example, ought to share in the costs of flood control or urban renewal, which as direct benefits reside locally. Costs which are widespread are automatic. The same point is made below in connection with the public character of such goods: the public character of such goods is a whole when, in fact, collection is restricted to a given locality or project, such as the collective consumption of a local police force?

In the literature, the efficiency aspects are limited to the longrun questions of the optimal scale of service. The costs from existing capacity are not considered in public facilities is considered in the case of direct tolls) or tax-benefit taxes) return funds to pay for the investment on cost recovery and cost recovery takes its rationale from the question discussed here. If the cost is not recovered, either an error has been made or the beneficiaries are not required to pay. If the cost is not recovered, then the investment

is, if we do not require cost re-

covery from the beneficiaries, we will not really know whether the benefits from the service exceed the costs. This argument is often made both in an ex ante sense and in an ex post sense. The requirement of cost recovery from the beneficiaries as a precondition makes sense in that the beneficiaries will carefully consider the worth of the benefits in relation to the costs during the plan-formulation period. Ex post calculations can point out past errors and serve as a basis for future improvements in decisions for new investments. All this seems reasonable, except that emphasis on cost recovery may be inconsistent with the best shortrun use of existing facilities. In addition, excessive emphasis is often placed on the recovery of historical or "sunk" costs, which may not be efficient for new investment decisions.

The economic costs relevant at any one time are the opportunity costs of resources and the alternatives sacrificed now and in the future. Although cost recovery from beneficiaries has many obvious virtues, recovery of historical (or sunk) costs will be inefficient because they are not likely to coincide with opportunity costs. We are always faced with the possibility of change in the future and the possibility of not making correct projections, when constructing long-lived facilities. To insist on cost recovery of historical costs in the light of greatly changed conditions may clearly result in charging too little or too much. Moreover, cost recovery tends to foster the idea that once facilities are "paid for," they should be free. More on this later.

The Public Utility Literature

The writings on public utility economics are the second major strand of the literature on beneficiary charges. The principles of public utility rate regulation are an uneasy blend of legal and economic principles tied together within a framework of cost accounting. The legal principles tend to be concerned with the financial requirements of the utility and with the notions of equity and fairness to stockholders and consumers. In general, economic theory in this area has been forced to adjust to legal and financial constraints.

This is not the place to launch into a full-scale examination of the principles of public utility rate regulation (usually these principles have been applied to both publicly and privately owned utilities). How-

ever, to sketch out the basic features of the principles will be helpful because any study of the possible inefficiency generated from the failure to employ beneficiary charges must also come to grips with the possible inefficiencies from the use of improperly applied or incorrect user charges. I suspect that a thorough study of the matter would show that major efficiency gains could be achieved by a drastic overhaul of the system of rate regulation of public utilities (federal, state, and local).⁴

In large part, the level of public utility rates is determined by the following relationship:⁵ $R = E + (V-D)r$, where R is the total revenue required to cover total costs; E is the full operation and maintenance expense; V represents the fair value when the facilities were new; D is the depreciation allowed in the value of the facilities; and r is the fair rate of return to be allowed on the current fair value $(V-D)$.

This method of rate determination has the following schematic properties:

$$\begin{aligned}\text{Total Revenue (TR)} &= \text{Total Costs (TC)} \\ \text{Average Revenue (AR)} &= \text{Average Costs (AC)}\end{aligned}$$

In short, public utility rates are based in large part upon two principles that are questionable from the standpoint of efficiency in the use of resources: (1) rates tend to be based upon recovery of historical or original costs, and (2) rates tend to be determined by the average cost of service as opposed to the marginal cost of supply. This sort of price policy probably represents a nice balance between such multiple objectives as equity in the distribution of wealth between consumers and stockholders, fairness among classes of service, and the provision of the financial needs of the utility companies. Yet it is questionable whether such a policy deals adequately either with efficiency in the use of existing services or with the development of optimal criteria for new investment. On the one hand, the scope of public utility operations is quite likely to be expanded and applied to an increasing range of public or quasi-public services. On the other hand, the opportunities to change or overhaul present practices and accepted principles of regulation are not bright because of the long weight of legal precedents supporting the present structure and because marginal-cost pricing has some practical and theoretical difficulties of its own.

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(TR) = Total Costs (TC)
(AR) = Average Costs (AC)

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On the other hand, the opportunities practices and accepted principles of reg- of the long weight of legal precedents and because marginal-cost pricing has difficulties of its own.

The Marginal-Cost Pricing Literature

The third major body of economic literature bearing upon the theory and use of beneficiary charges is the writing of "welfare" econ- omists who have developed the theory of marginal-cost pricing. Al- though some of the principles of marginal-cost pricing are now being described or adopted in writings in public finance and in public utility economics, as yet a full-scale synthesis has not been achieved. For example, a public utility textbook will generally have a chapter on marginal-cost pricing, but then little is done to relate the implications of the theory and practice of rate regulation. Neither public finance nor the public utility literature has succeeded in rationalizing the needs for reimbursement of financial costs with the efficiency rationale of marginal-cost pricing that may generate surpluses or deficits. The theory of marginal-cost pricing stresses that investment and operating decisions on social investments should be made independently of re- reimbursement policies for individual lumps or units of productive capacity.

It seems clear that marginal-cost pricing is still a controversial topic, one on which economists have not reached a complete consensus. At one extreme are those who have accepted it as a major pillar of public policy;⁷ at the other extreme are those who have rejected it as invalid or wholly impracticable.⁸ Between these poles are many econ- omists who have advocated changes or modifications in the principle itself or qualified the claims that its strict application will produce an optimal allocation of all resources.⁹

In its most simple form, the cardinal rule of marginal-cost pricing says that the demand price should be made equal to marginal cost, with marginal cost defined as the incremental costs of production (more technically, as the derivative of the total cost-function with respect to output). Since resources are drawn away from alternative uses, mar- ginal costs should reflect accurately the social opportunities foregone. The equality of price and marginal cost ensures that consumers equate marginal benefits from this use of resources with the real alternatives foregone elsewhere. In a world of pure competition the market mecha- nism would operate to ensure this equality.

For some types of public goods, production is characterized by long-run decreasing costs or increasing returns to scale. Marginal cost

will lie below average cost in increasing return cases.¹⁰ If demand price is made equal to average cost (full-cost recovery), the price will exceed marginal cost. This result is inefficient because the value that consumers place upon extra output exceeds the cost of alternative production that could be sacrificed elsewhere to produce this extra output. It is therefore desirable to expand production to the point where price equals marginal cost. However, this solution will generate a deficit, and the goals of cost recovery come into conflict with efficiency. It is thus fair to ask why these costs should be borne by the general taxpayers when the benefits are seen by the users of the facility. In contrast, equating price and marginal cost when the average cost of production is rising will require restricting output to the point where price equals marginal cost, even though total costs could be recovered at larger outputs and lower prices. In this case, marginal-cost pricing would generate surpluses.

These simple-sounding arguments may hide a whole set of complicating circumstances and situations. As C. J. Oort suggests (as expanded below), answers can be made to most of the theoretical and practical objections raised against the marginal-cost pricing principle. In particular, a whole set of devices has been proposed to deal with the troublesome problems of surpluses and deficits.¹¹ Also, economists always point out that the case for marginal-cost pricing is based upon three important conditions:¹² (1) that there are no important spillover effects in production and consumption that are not reflected by $P = MC$; (2) that the current distribution of income be acceptable or certainly not biased toward the particular measurement of prices and costs; and (3) that deviations from $P = MC$ elsewhere in the economy do not require compensating adjustments in this sector (the theory of the second-best).¹³

The efficiency arguments for beneficiary charges, although subtle and often complex, are the most persuasive and valid. To illustrate this point, I quote from a summary of a searching critique by Oort of the marginal-cost pricing principle.

We have shown that many of the objections to the principle are either invalid, or irrelevant for policy, or require certain more or less important modifications rather than a rejection of the principle. Invalid are all those objections to the rule which are based on alleged or actual indeterminacies of the marginal cost function; in most cases, the correct interpretation of

return cases.¹⁰ If demand price (post recovery), the price will exceed cost because the value that consumers place on the extra output is greater than the cost of alternative production to produce this extra output. In production to the point where price equals marginal cost, a deficit will be generated, and this deficit will conflict with efficiency. It is thus borne by the general taxpayers, not the users of the facility. By contrast, when the average cost of production is greater than the price, the price is below marginal cost, and the deficit could be recovered at larger output. Marginal-cost pricing would gen-

erally hide a whole set of costs. As C. J. Oort suggests (as extended to most of the theoretical and practical marginal-cost pricing principle), it has been proposed to deal with deficits.¹¹ Also, economists marginal-cost pricing is based upon the fact that there are no important spillover effects that are not reflected by the price of income be acceptable or not. If MC elsewhere in the economy is not in this sector (the theory of

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principle, which requires in the first place the equilibrium of demand and supply, will lead to a perfectly determinate solution in terms of prices and outputs even where marginal cost is indeterminate. In particular, this holds for the cost of joint production in which separate marginal-cost functions generally speaking do not even exist, but in which the marginal-cost pricing principle nonetheless applies without any qualifications. Irrelevant are those objections which apply to any and all cases of policy; this holds for the entire class of problems raised by the factor "uncertainty." Of the many modifications to which the marginal cost pricing principle must be subjected before it can be applied in practice, none appears to be so drastic as to actually imply the rejection of the rule as such. It is in the nature of a compromise between the principle itself and some other economic objective such as the minimization of the administrative costs incurred by putting the proposed price and output policy into effect.¹⁴

Cost-Recovery, Marginal-Cost Pricing, and Efficiency

Krutilla is one of the few writers who has worried about the difficulties of determining the proper scale of facilities when no charge is to be levied on the beneficiaries:

We have on the one hand dicta that the scale of a facility should be extended to the point at which incremental benefit equals incremental cost. However, unless user charges are levied to cover the cost of providing the marginal unit of output, there will develop excess demand represented by those users who would not find incentive to use the services of the facility if charges appropriate to the design criteria were imposed, but who will make use of the facility at zero price. If such use by any beneficiary at capacity output adversely affects the utility of any other, the design criteria result in a project inappropriately sized relative to realizing the benefits estimated for purposes of design. At any rate, it is clear that design criteria as presently conceived relate to the correct design for an irrelevant situation where reimbursement policies are at variance with design criteria.¹⁵

Krutilla argues that the marginal-cost pricing doctrine makes the investment decision "independent of the reimbursement policy for individual chunks of productive capacity." He says that initially there may be excess capacity in facilities, justifying a marginal-cost pricing policy of not recovering full costs. However, as use of capacity increases, prices should be raised "to ration scarce capacity until a point

is reached at which the revenue demonstrates a beneficiary willingness to pay for service sufficient to justify an expansion of facilities. If user-fees are raised to reflect congestion costs they will sooner or later equal the average cost of capacity: "In short, marginal-cost pricing under these conditions will result in exactly recovering costs of facilities of optimal scale and schedule of expansion."¹⁶ All this seems to suggest that marginal-cost pricing, correctly applied, will provide full cost-recovery and that cost-recovery is a desirable efficiency objective.

To make these relationships appear even stronger, Krutilla next points out the difficulties that may arise when criteria for project design and policies for cost reimbursement are not consistent. The design criteria require that the scale of the investment be extended to the point where marginal benefits equal marginal costs. Unless user charges are imposed to cover the costs of the marginal unit, he argues, excess demand will develop and use of the facility will be inconsistent with the design criteria. Therefore, reimbursement policies should be made consistent with design criteria.

I am not at all sure that the policies of cost recovery and marginal-cost pricing are nearly so compatible (as Krutilla suggests) when we apply the opportunity-cost concepts in a world of uncertainty and changing supply and demand relationships, especially when applying these concepts to long-lived facilities. Some difficult questions are raised when we ask about the relevant social costs, in terms of alternatives sacrificed the day before a project is built and the day after.

Even in a world of perfect foresight and with no unexpected changes in future supplies and demands, the day after a project is built most of the resources involved may be "sunk." The alternatives sacrificed from then on are usually only current operation and maintenance costs, which may be low. In such cases, prices should be set to ration supply and demand, and this may mean that deficits are the rule of the day. The common answer in the literature is that eventually prices will rise to ration demand as demand increases in the future, and that the later surpluses generated will balance the early deficits so that full costs will be recovered.

I do not find this line of reasoning convincing when the argument is placed in a context of uncertainty and unanticipated change.

convincing when the argument is unanticipated change.

If my argument has validity it would mean that the recovery of historical costs should be viewed with suspicion when questions of efficiency in a world of change and uncertainty are relevant. The argument would also imply that repayment contracts and price policy should be made flexible in light of changing conditions. In other words, what would promote efficient resource use in a future world is only vaguely perceived at the time of project construction. The same logic would also apply to project operation. Sharp changes in operating costs and product mix of a multipurpose project may well be efficient and productive for the same reasons.¹⁸ Although fixed repayment contracts, fixed beneficiary charges, and fixed operating rules may be necessary for legal and finance reasons, they may not be at all conducive to efficient resource use. These points may seem relatively

straightforward from the standpoint of the efficiency of resource use, but they have not, to my knowledge, been carefully analyzed in the literature on public expenditure decisions.¹⁹

Notice, however, that the argument has now been shifted from emphasis on cost recovery and repayment to the "rule" that public projects should be operated to maximize their net social product. The "cost recovery" that takes place is the meeting of opportunity costs. The covering of opportunity costs will recover "historical" costs only in a world where future opportunity costs coincide with historical opportunity costs. I think we can agree with Krutilla that evaluation policies and design criteria should be made consistent, as far as possible, with assumptions about future price policies. But no amount of ex ante rationalizing can deal adequately with problems of uncertainty and change regarding future opportunity costs.

In spite of all this, it might be important to note that the idea of cost sharing (as opposed to cost recovery) appears to have a great deal of merit and could perhaps promote efficiency in terms of the behavior of the parties at issue. Fox has suggested that (1) cost sharing provides valuable information on the demand for the public service to policymakers, and (2) cost sharing tends to keep the claims of perspective beneficiaries in check.²⁰ Note that Fox is apparently talking about cost sharing and not cost recovery. The arguments that I posed earlier for user charges based upon marginal costs would imply some degree of cost sharing, even though "original" costs may or may not be recovered. The fact that user charges would equate supply and demand would (or could) provide information to decision-makers, as well as provide discipline against excessive claims of beneficiaries. It also seems to me that the correct argument is not that zero prices are opposed to cost recovery (or cost reimbursement), but that prices will be used to ration service and to equate marginal social costs and marginal social benefits. Costs thus will be "shared" and perhaps "recovered," but they will probably not be original costs.

Most of this discussion is couched in terms that may be convincing to economists. But how does it stack up in the real world of affairs? If the original (financial) costs of construction are not recovered from the beneficiaries, they still must be paid for by someone. If not by the beneficiaries, who will return the costs of funds with interest? In the business world, when the future is incorrectly anticipated, losses of a

are borne by the suppliers of equity capital and occasionally by the suppliers of debt capital. In the public world, the state governments and local governments have the power to tax, and the federal government has the power to print money as well as the power of taxation. The facts of the matter are that taxes will probably be employed to recover the costs in this case. The efficiency questions should be concerned with the possible adverse effects of these taxes upon resource allocation versus the adverse effects of the levy of beneficiary charges that might return historical costs but still be inefficient.²¹

It is difficult to see a clear-cut answer to the issues posed here. As far as I know, they have not been given careful treatment in the economic literature. The legal question of how to make repayment contracts and project operating rules more flexible in light of changing economic conditions over the life of a project are also a source of major difficulty. Clearly, these problems of cost sharing and efficiency are most likely to arise in the construction of large chunks of investment capacity with long lives. When public investments are relatively divisible and small in relation to the size of the market, the problems of future uncertainty and the large divergencies between average and marginal costs will not exist. However, one point made here still stands: the future opportunity costs to be covered may be more or less than historical costs. It is likely that recovery of historical or original investment costs is inconsistent with economic efficiency both in the short run and the long run.

Public, Private, and Merit Goods

A great deal of confusion exists about the conditions under which beneficiary charges are desirable and feasible. At this point it might be helpful to introduce the concepts of *public* goods, *merit* goods, and *private* goods. It is technically possible in the case of private goods to exclude persons who are not willing to pay for the goods or service. In private goods, the benefit is received largely by the individual person or household. As a result, private production is technically possible and usually desirable. However, a number of private goods and services are supplied by governments, particularly public utility types of services.

By contrast, a public good, in its pure form, is equally available

to all, because (1) there are no feasible ways of excluding any consumer from enjoying the good, and (2) the consumption of one consumer does not interfere with the amount available to all others. Classic illustrations of a public good are national defense or a radio transmission that covers the whole area.

Merit goods have been defined in several ways, and admittedly this is not a clear-cut category. Perhaps it is easiest to say that a merit good is a private good that has been endowed with the public interest. From a merit good the individual receives more of a public service than he would have purchased on his own. Margolis states that:

The initial attitude toward merit goods was to see them as imposed on the population by a group of moralists, or the intellectual elite, or a pressure group with power, but with a recognition that the imposition might be a legitimate activity in a democratic society.²²

However, it now seems less restrictive to consider a merit good a private good that has some public good characteristics.²³ That is, part of the benefit is "seen" by the individual consumer and part by persons external to the individual or by the public in general. Although it is possible to levy user charges, total production could be subsidized to the extent that collective benefits were perceived.

If the subsidy were supplied by a tax on the general public, it could perhaps be thought of as the most general form of benefit tax. This would not necessarily mean that the good must be supplied free of charge to the individual consumer. A proper user charge to the consumer would equate marginal private benefits to marginal private cost, with the extra consumption and production justified by collective benefits being subsidized by general taxes.

In some cases the external or collective benefits are satisfied by the first amounts consumed. Thus, *at the margin*, the benefits received may be largely individual in nature. As a result, we must be careful to distinguish between all-or-none decisions and those involving a little more or a little less consumption. For example, we can plausibly argue that an urban water supply confers a collective benefit on the community in the form of public health, in addition to the benefit received by individual households. On this basis, one could also argue that some form of public subsidy might be justified in support of urban

water investment and consumption. Yet all of the public health requirements might be satisfied by a per capita consumption of 60 gallons per person per day so that a consumption rate of 120 gallons per person per day should reflect only the equation of individual marginal benefits and marginal costs. However, the generation of collective benefits at the margin for merit goods could justify prices at less than marginal costs for individual consumers.

Shortrun efficiency

The efficiency problem in public production is twofold: (1) the optimal level of investment in capacity (longrun efficiency) and (2) the best use of existing facilities (shortrun efficiency). Clearly, the longrun efficiency question is applicable to all forms of public production—public, merit, or private goods. But the shortrun efficiency question is not relevant to pure public goods nor to the collective (marginal) aspects of merit goods. The shortrun question refers to the need to ration private goods. For instance, my consumption may interfere with your consumption. The shortrun question also refers to relevant marginal costs that are positive. For public goods, then, not only is it technically impossible (or difficult) to exclude or to ration service, *it is also unnecessary and undesirable to do so*. The marginal cost of an extra consumer is zero (or nearly so), and there is no excess demand; there is therefore no need to ration. Even if it were possible to ration use, the correct price would be zero.²⁴ Sometimes this point is not well understood by students of public policy who want more cost sharing employed to achieve efficiency in public expenditure. As we shall see below, there are indeed many problems in trying to get the proper level of investment for public goods, but this problem should not be confused with the role or need for user charges in the short run.

For example, the Federal Water Project Recreation Act of 1965 was hailed by many as a laudable advance in providing for cost sharing by beneficiaries of recreation and fish and wildlife investments in federal water projects.²⁵ The provisions of the act with respect to cost sharing specify that non-federal agencies must bear 50 percent of the separable costs allocated to recreation, fish and wildlife, and all of the operation, maintenance, and replacement costs thereafter. The non-federal share of the separable costs can be borne in two ways: (1) pay-

ment, or provision of land, or facilities for the project; (2) *repayment with interest within 50 years, provided that the source of payment be limited to entrance fees and user charges.*

Notice that repayments were restricted to entrance fees and user charges. We have just seen that employment of such charges is feasible only for goods of substantial private character where the benefit is largely individual and where it is possible to apply exclusion. Moreover, I have pointed out that rationing is needed only when *my* consumption interferes with *your* consumption, and when the marginal costs of extra consumption are positive. Apart from the legitimate question of whether the state and local agencies for recreation and fish and wildlife do have the necessary legal powers to incur debt and to collect fees, it is clear that many types of recreation services and fish and wildlife services are public in character. It would, in many cases, not be feasible to collect entrance fees and user charges nor would it be desirable to do so as long as congestion did not develop and cause my consumption to interfere with yours.²⁶ I am not suggesting that cost sharing per se is undesirable in this case.

It is clear that the discipline of cost sharing by local agencies would keep in bounds all sorts of exaggerated claims of benefits for recreation and fish and wildlife. Moreover, having to bear only 50 percent of the separable costs would not seem to be excessive when many of the collective benefits probably reside or accrue to people within the state or region. All these points are certainly desirable in trying to achieve *longrun* efficiency in the proper scale of facilities.

However, the restriction of repayment revenues to revenues from entrance fees and user charges could well cause *shortrun* efficiency problems to arise. Although such fees might be justified on efficiency grounds to ration service in some instances, they clearly would not be applicable across the board. Imagine trying to collect user charges on a long river when there are numerous recreation benefits downstream. On the basis of the argument here, it would seem desirable to modify the Federal Water Project Recreation Act to remove the restriction that repayments for cost sharing be *limited* to entrance fees and user charges. We must not confuse the rationale for cost sharing to promote *longrun* efficiency with the proper role of user charges in promoting *shortrun* efficiency.

However, we should stress that an argument could and should be

made for user charges on recreation and fish and wildlife facilities *without any reference to cost sharing of original costs.* Instead, as we argued above, user charges should be based on rationing, space and making the users see the congestion or pollution costs they impose upon others. A colorful statement of this point of view is provided by Gaffney:

As I recall the summer roar of Seahorse motors on peaceful lakes, the oil slicks, the loud speaker radios, the boat toilet problem, and the beer can outrage, I lose enchantment with the notion that the marginal boater is an innocuous fellow who sheds no external costs. The marginal swimmer, maybe, but how much space is he allowed? The age of genteel canoeing is dead. Man has so magnified his powers to invade his neighbor's privacy, and placed such terrible engines of nuisance in the hands of so many barbarians and adolescents who are enjoined from releasing their aggressions in useful labor that the marginal curve of psychic pollution rises vertiginously. So long as we refuse either to civilize or employ our young, the only salvation is to tax their more destructive pursuits, and certainly not to pretend they aren't bothering anyone.²⁷

Before I turn to a discussion of the efficacy of beneficiary charges for promoting *longrun* efficiency in investment in public facilities, it will be helpful to emphasize three points on the role of user charges as a means of rationing use of existing capacity.

1. It is clear that as congestion develops and as the marginal user imposes congestion or pollution costs on others, a public good or service may become "private" in the sense that there is a need for rationing to make efficient use of a limited facility, watershed, or airshed.

2. Here the question becomes how best to ration. It could well be that some administrative rationing devices could function effectively and at less cost. This is the place to indicate that the administrative costs of collection of beneficiary charges, especially user charges, may or may not be low. Clearly, this may be an important factor governing their use.²⁸

3. Zero prices for some public services may not always result in excess demand and congestion if there is some complementary factor of production employed in the process which may itself be rationed. Perhaps some examples will clarify this point. The provision of flood control protection to lands in a flood plain is a public good. The service is equally available to all persons occupying the plain, and my con-

sumption does not interfere with your consumption. However, the service of flood control protection is rationed to the extent that, to enjoy the service, one must buy or rent land (a location). The price of land will reflect the value of the service and serve to ration demand for the limited supply of lands protected.

In fact, most of the benefit over the life of the facility will tend to be capitalized in land values the day the project is built. If the flood control protection is provided free of charge to the flood plain, the gainers will be the initial landowners. Subsequent land users will be required to pay land prices or rents that reflect changing opportunity costs and that equate supply and demand. In most cases, it would be difficult to claim that such landowners should be classified as a disadvantaged group, so that the case for benefit taxation based upon land values to recover marginal costs would seem to be especially strong.

However, the fact that such windfall gains have a long history of political acceptance is indicative of the general observation that attempts to implement beneficiary charges for efficiency reasons may not be very successful. For the politician and for the man of affairs, the efficiency arguments for beneficiary charges are likely to carry less clout than would arguments based on possible rising demands for equity or for the needs for revenue production.

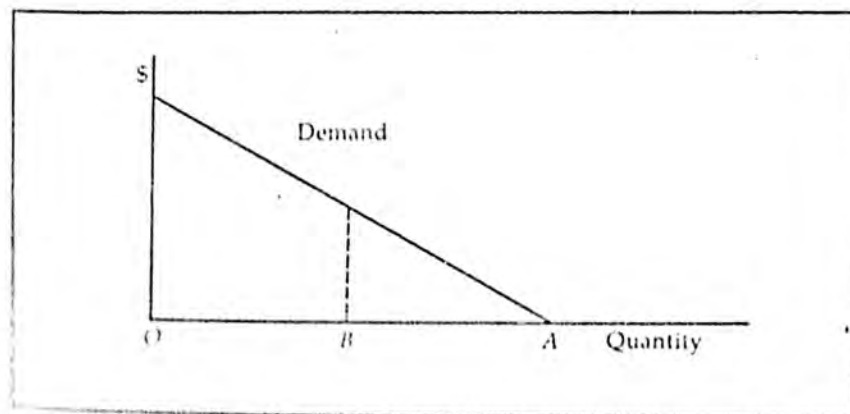
We might observe that rents for lands or houses may serve to ration the use of a public service but may need attention for another reason. In the case of merit goods we are presumably trying to subsidize a public service, e.g., public schools. If, however, excess demand develops, land values and housing rentals may rise so that the disadvantaged groups may be forced to pay the equilibrium price for the service in higher rent or else live elsewhere. Zero prices of services may thus generate shadow prices in complementary factors that are inelastic in supply. Although the rationing effect may be commendable from an efficiency point of view, we may not achieve the redistribution of income we sought in provision of the merit good. This perversity would be accentuated if the landowners and landlords received untaxed windfall gains in increases of housing and land values.²⁹

Zero prices to users do not necessarily imply that there is no rationing involved in the consumption of the service. This fact leads to several interesting observations. One is that the real or shadow price to the user may be positive. It is therefore not always clear, as the

literature often asserts, that the marginal benefits will be zero, leading to waste because the service is "free" when marginal costs are positive. In fact, the effect of nonprice rationing or the rationing of auxiliary factors may serve to stop consumption far short of the point where marginal values in use are zero, even though user charges are zero.

A second observation concerns the conclusion we can draw from attempts to construct demand curves and to estimate benefits on the basis of revealed behavior (consumption data) at zero prices. Suppose, for example, that actual consumption of a service is Q_1 in a zero-price situation. Without additional information on the degree of rationing (administrative, congestive, or the indirect, as in the price of complementary resources) we do not know whether to place Q_1 at point A on the implicit consumer demand curve or whether it should lie somewhere to the left of point A, say at B in Figure 2.1. The nature of the judgments we can make about marginal benefits in zero-price cases, and hence what we can infer about waste, is thus not intuitively obvious. Greater consideration needs to be given to the possibilities of hidden or implicit rationing in the analysis of revealed behavior in zero-price situations.

Fig. 2.1 Estimate of Demand at Zero Prices



clearly, this discussion does not refute the point made by Krutilla that the use of public goods may distort the allocation of resources for the set of producer goods that are factors of production, so that the inefficiency

effects may be found in the use of other inputs and investments, not just in particular service provided.³⁰ But it does mean that the question of possible inefficiencies generated in zero-price situations is apparently much more complicated than the existing literature suggests.

Longrun efficiency

Beneficiary charges can stimulate efficiency through the promotion of proper scales and levels of investment in two ways: (1) by imposing discipline on investment decisions and (2) by providing information to improve those decisions. The fact that beneficiaries will be charged will provide some discipline on the claims of benefits and will tend to force beneficiaries to consider these benefits and costs (the charges) in relation to alternative uses of their resources. If the burden of costs cannot be shifted, there will be less inducement to puff claims of benefits, and the relative allocation of factors will be improved.

The arguments made earlier that historical costs are not relevant to price policy based upon opportunity costs clearly raise many troublesome questions when we leave the static world and view investment in public facilities as a continuing process. Costs that may not be marginal in respect to output do become marginal in respect to the total question of whether to produce at all. Are the longrun marginal costs that we should be concerned with merely the derivative of the longrun, total cost-function with respect to output when the question is one of whether to produce at all? Also, are there not serious behavioral implications stemming from the dictum of ignoring historical costs the day after a project is constructed? Can you tell beneficiaries and public agencies that costs are important before a project is built and then not require cost-recovery the day after?

Unless substantial payment for benefits is required from beneficiaries or from the jurisdictions in which they reside, the forces to discipline public investment decisions will be very weak. Clearly when the discipline of the market is absent, there are serious problems of how to obtain responsible public investment decisions. We lack measures to reward good decisions and to penalize poor ones.

The discipline argument appears to be a powerful one, but there is not much I can add here. Further study of this line of thinking

would accord with the suggestions to explore further political and behavioral models of the demand for public services.

Closely related to the discipline effect is the information effect cited above by Fox. That is, the application of beneficiary charges would provide decision-makers with valuable information about the benefit functions for public services. Provision of services at zero prices and failure to impose cost sharing makes it extremely difficult to estimate benefits received by users and to evaluate projects carefully.³¹

Just how difficult it is to estimate benefit functions in zero price cases is not usually appreciated. Some literature does exist on the problem of getting the public to reveal preferences, but the empirical problems of benefit estimation in zero-price situations are quite formidable. For example, suppose we have some revealed behavior on library circulation at zero price in an attempt to quantify some of the benefits of a public library. If the circulation is Q_1 , we have to decide first whether to place it at point A or point B in Figure 2.1. But then how do we generate some sort of demand curve as a basis for benefit estimation? Unless we have another point, it is clear that we have little notion of the area to be measured and that points A and B could be consistent with an infinite number of demand functions. Benefit-cost analysis of public services supplied at zero prices is an incredibly difficult task, even when we have acceptable measures of the output unit. Revealed behavior at zero prices is extremely difficult to translate into meaningful benefit functions.

In general, I find the discipline and information arguments persuasive, yet I think that a great deal more study of the matter is required before we recommend the adoption of beneficiary charges for a greatly expanded range of public services. For goods that have substantial public content, the practical questions are: how do we get the public to reveal their preferences, and how do we collect beneficiary charges that may promote longrun efficiency and yet not cause short-run inefficiencies?

For private goods, the problem is somewhat less. The people or consumers have to reveal their preferences because no other beneficiaries will do so, and "if I do not pay, I will not get the good." The efficiency problem with private good production in the public sector is

how to reconcile desire to recover costs with the need to meet opportunity costs. As I suggested above, the theoretical conditions necessary for the reconciliation of these two kinds of cost recovery are not likely to be found in actual practice. However, we would hope that revenues generated by "correct" pricing policies would still recover some or all of the original costs so that the users would be more likely to bear the costs (as well as enjoy the benefits) rather than shifting the burden to other groups.

As Brazer, Gaffney, and others have pointed out, many kinds of public goods are, in fact, not equally available to all, but available only to particular regions, areas, or user groups. Although it may be difficult to estimate the amount of a policeman's service used by a particular family on the beat, it is clear that the policeman on a given beat provides protection primarily to that beat and only secondarily to other parts of the city and to other cities in the same region. For that commonly used example of a public good, the lighthouse, the service is certainly not provided to all, but only to boats in the vicinity of a given lighthouse. Flood control protection provides benefits mainly to users of the flood plain, fire protection to one area is not fire protection for the whole city, television signals may benefit only a limited service area, and so on.³²

All this suggests that it may be easier than many writers believe to identify beneficiaries of a particular public good. If this is the case, the classic ingenuity of the American political system could be called on to provide decision-making institutions through which people's preferences can be revealed as a prerequisite for determining what types of beneficiary charges are appropriate and desirable.

NOTES

1. Werner Z. Hirsch, "The Supply of Urban Public Services," and Richard A. Musgrave, "Discussion of Part III," in *Issues in Urban Economics*, Harvey S. Perloff and Lowdon Wingo, Jr., eds. (Johns Hopkins Press for Resources for the Future, 1968). Hirsch and Musgrave cite examples of this tendency: on the demand for services, see Julius Margolis, "The Demand for Urban Public Services," in the same book.

2. James Buchanan, *The Demand and Supply of Public Goods* (Rand McNally, 1968) offers an exception.

3. As Edgar Olsen (one of the helpful critics who read my paper in an earlier draft) has suggested, the benefits of flood control and urban renewal are viewed as widespread because many communities have projects. The relevant question from the viewpoint of beneficiary charges is the extent of benefits from any one project.

4. William J. Baumol, et al., "The Role of Cost in the Minimum Pricing of Railroad Services," *Journal of Business* 35 (October 1961): 357-366; Jack Hirshleifer, et al., *Water Supply: Economics, Technology, and Policy* (University of Chicago Press, 1960), Chapter 5 (hereafter referred to as *Water Supply*); and William S. Vickrey, "Some Implications of Marginal Cost Pricing for Public Utilities," *American Economic Review* 45 (May 1955): 605-620.

5. Eli W. Clemens, *Economics and Public Utilities* (Appleton-Century-Crofts, Inc., 1950), p. 127, uses this formulation.

6. "Fair value" can mean values other than original cost. A better alternative from an economic standpoint would be replacement cost. In actual practice, as James C. Bonbright says, "all commissions administer, with more or less efficiency or laxity, versions of, or minor deviations from, an actual cost or sunk cost standard of reasonable utility rates" (Bonbright, *Principles of Public Utility Rates* [Columbia University Press, 1961], p. 283).

7. Abba P. Lerner, *The Economics of Control* (Macmillan, 1944).

8. I. M. D. Little concludes, "The general case against marginal-cost pricing is clearly overwhelming" (Little, *A Critique of Welfare Economics* [Oxford University Press, 1950], p. 194).

9. Nancy Ruggles, "The Welfare Basis of the Marginal-Cost Pricing Principle," *Review of Economic Studies*, 17 (1949-50): 24-46; and "Recent Developments in the Theory of Marginal-Cost Pricing," *ibid.*, 107-126. These articles give an excellent review of early marginal-cost pricing literature.

10. Several of my critics have objected to this statement, asserting that cases where longrun marginal costs diverge from longrun average costs are not frequent or important. Because our knowledge of cost functions for a wide range of public goods and services is so skimpy, it is apparent that neither position is presently supported by much empirical study.

11. See Hirshleifer, et al., *Water Supply* (see note 4 above).

12. Most of these qualifications apply equally well to any system of beneficiary charges, particularly to policies based upon average-cost pricing.

13. William Baumol and David Bradford, "Marginal-Cost Pricing and the General Welfare Revisited" (unpublished manuscript). The paper contains a valuable survey of earlier work. It reaches the disturbing conclusion that systematic deviations through the economy from marginal-cost pricing will be required for an optimal allocation of resources because all taxes (except Pigouvian or π taxes) to cover deficits will unavoidably make some prices depart from marginal costs.

14. C. I. Ort, *Decreasing Costs as a Problem in Welfare Economics* (Drak-

kerij, Holland, N. V. Amsterdam, 1958), Appendix on "The Marginal Cost Pricing Principle."

15. John V. Krutilla, "Is Public Intervention in Water Resources Development Conducive to Efficiency?" *Natural Resources Journal*, 6 (January 1966): 72.

16. *Ibid.*, pp. 66, 67, 68. Some of my critics think I have been unfair to Krutilla here; others agree with me. As I suggest below, Krutilla is correct only if he means recovery of new facility costs in an ex ante sense—not recovery of sunk costs.

17. Note the difficulties this argument implies for privately owned public utilities: investors must be paid, or the market for securities will be affected. Notice also that the argument has implications for all private firms—not just those with public utility status.

18. Maynard M. Hufschmidt (chairman), et al., *Report of Panel of Consultants to the U.S. Bureau of the Budget on Standards and Criteria for Formulating and Evaluating Federal Water Resources Developments* (U.S. Bureau of the Budget, June 30, 1961), p. 59. This report advances a similar argument.

19. One of my critics argued that more firms should be nationalized in the interest of efficiency to avoid the legal difficulties of deficits arising from the dictum not to recover historical costs. The deficits could presumably be paid for out of the general treasury. However, as Baumol has suggested, taxes themselves may introduce significant deviations from marginal costs.

20. Irving K. Fox, *Essays on United States Water Resources Policy* (University of Wisconsin, 1968).

21. My critics are of many voices on the questions raised here. Some say that recovery of historical costs involves no economic questions, and that my worries here are incorrect. Others see that failure to make beneficiaries share original costs will have dire consequences. Still others see beneficiary charges as second-best choices over tax levies. Finally, some worry about the meaning of the arguments for utility firms in the private sector.

22. Margolis, "The Demand for Urban Public Services," p. 541 (see note 1 above).

23. Several readers have argued that I ought to abandon the concept of merit goods. Considering both consumption and production externalities, almost all goods are part public and part private. Public and private goods are polar cases along a continuum.

24. Note that we must distinguish between the marginal cost of adding an additional TV set *once* the station is on the air and the marginal cost of changing the amount of production that is equally available to all. In the latter sense, each consumer is rationed to the quantity of the service that is actually produced. Here neither marginal utilities nor marginal costs are zero. Once the production decision has been made, the marginal costs of additional consumers are zero even though the amount and kind of service for each individual is fixed.

25. Public Law 89-72, passed July 9, 1965.

26. Robert Haveman (another of my helpful critics) suggests that if a local agency recognizes that user charges are not conducive to short-run efficiency, it could choose to make the non-federal share in the form of an outright payment.

27. Mason Gaffney, "The Valuation of Public Goods—Discussion" in Morton I. Gaffney and James R. Hibbs, eds., *Social Sciences and the Environment* (University of Colorado Press, 1967), pp. 154–160.

28. Although many economists are sympathetic to Vickrey's plea for user charges to ration the use of city streets, they are skeptical of the proposal because the administrative costs of collection are likely to be high in relation to the efficiency gains perceived. Similarly, the desirability for underdeveloped countries to use water meters for rationing water supply may be doubtful if the costs of the meters themselves, their servicing, and the billing system are quite high in relation to the value of water saved and water investment avoided.

29. J. W. Milliman, "Land Values as Measures of Primary Irrigation Benefits," *Journal of Farm Economics*, 41 (May 1959); also, "Land Values—A Further Comment," *ibid.*, 42 (February 1960); and see Margolis, "The Demand for Urban Public Services," p. 546, and Gaffney, "The Valuation of Public Goods—Discussion" (see, respectively, notes 1 and 27 above).

30. Krutilla, "Is Public Intervention in Water Resources Development Conducive to Efficiency?" p. 69 (see note 15 above).

31. Roland McKean argues that admission charges supply important information about the nature of public demands and might be justified on the grounds of being the cheapest way for decision-makers to gain information about marginal evaluations by consumers. See McKean, *Public Spending* (McGraw-Hill, 1968), p. 73.

32. James M. Buchanan, "A Public Choice Approach to Public Utility Pricing," *Public Choice*, 5 (Fall, 1968). Buchanan advocates that a person have two roles—one as a taxpayer-purchaser and one as a consumer-purchaser, with separate marginal tax prices and marginal user prices. These suggestions have many attractive properties, but it is difficult to see how they could be implemented.

Back-Door Socialism

Reflections on TVA

by PETER BARNES

Once the center of controversy, the Tennessee Valley Authority is now middle-aged and well established. Its history shows the advantages and limitations of Washington-created "socialist islands."



To its supporters, the Tennessee Valley Authority was never a "socialist prototype." It wasn't even a model for radical economic change. David Lilienthal, one of its first directors, described it simply as "democracy on the march." To others it was an example of America's genius for pragmatic problem solving. Only its detractors labeled TVA a socialist experiment—"creeping socialism," Eisenhower called it—and every time they did so the label was vigorously rejected by TVA's friends. But the detractors were not far off the mark, for TVA is, in fact, the closest the federal government has ever come to building an island of socialism in the American capitalist sea.

The agency has never had a coherent socialist ideology. But its operating premise—public ownership and development of basic resources—represents, or at one time represented, a genuine challenge to the capitalist ethos and to at least a part of the economic elite. TVA attacked and destroyed—through expropriation with compensation—a major privately owned

industry, the electric utilities of the Tennessee Valley. At various times it was involved, or considered becoming involved, in the production of fertilizers, timber, aluminum, concrete, and coal. Using its eminent domain powers it built several parks and a new town. It could have engaged, though it chose not to, in agrarian reform.

The dream of many New Dealers was to blanket the nation with regional authorities similar to TVA—to create, in effect, a socialist archipelago. The dream was never fulfilled because there was never enough political support behind it. But it typified the strategic thinking of what might be called the back-door school of American socialism. The school has (or had) two major premises: (1) if socialism is ever to come to the United States, it can't be *called* socialism; and (2) the road to socialism lies in top-down institution building rather than in grass-roots political movements. TVA was the crowning achievement of the back-door school. If in the reflections that follow I emphasize some of the limitations of this approach, I do not do so unsympathetically; for it must be remembered that no other

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approach to socialism in America can claim much success.

During World War I the federal government built and operated a number of defense-related plants. Among them was a nitrate factory along the Tennessee River at Muscle Shoals, Alabama, built as a precaution against loss of Chilean nitrates. To provide power for the factory, a dam and a steam electric-generating station were also constructed. After the war scores of bills were introduced in Congress to sell the Muscle Shoals facility to private enterprise. One measure that passed the House would have given it to Henry Ford for \$5 million (it had cost nearly \$100 million to build). The Muscle Shoals controversy raged for more than a decade, with Senator George Norris of Nebraska, chairman of the Senate Agriculture Committee, repeatedly blocking a giveaway to private interests.

Norris's idea was to use the dam to generate low-cost public power, which then could be applied as a yardstick against privately owned utilities. He found support among farm-belt representatives—who, however, were less interested in public power than in the fertilizer that could be produced by the nitrate plant. In 1928 and again in 1931, Congress passed Norris-sponsored bills to authorize government operation of Muscle Shoals, only to see the bills vetoed by Presidents Coolidge and Hoover. Finally, in 1933, Roosevelt and Norris joined forces to create TVA, a public corporation governed by a three-man board. TVA would do more than operate the Muscle Shoals facility. It was given broad powers to develop a vast river basin, stretching from the mountains of Virginia and North Carolina to the cotton fields of northern Mississippi and Alabama.

There was virtually no "socialism" in TVA's origins. It was not conceived from scratch by a band of radical economic planners. Rather, it was the end result of a protracted 15-year controversy. The controversy got started only because the federal government had a "disposal problem" at Muscle Shoals, and it dragged on only because the payments offered by private bidders were so paltry. It was the reluctance of Congress to endorse wanton giveaways, rather than a disposition toward public enterprise—this was, after all, the Harding-Coolidge-Hoover era—that kept the matter boiling until, stunned by an unprecedented economic collapse, a newly elected Congress was willing to risk a relatively bold solution. TVA thus owes its creation largely to historical accident and too-blatant capitalist greed.

To be sure, historical accidents don't just happen; there must be forces present to take advantage of historical opportunities. In the case of TVA, these forces consisted almost entirely of the efforts of a single tenacious man, Senator Norris. Support for TVA from the Tennessee Valley itself was lukewarm at best. Farm groups in the area wanted something done with the Muscle Shoals nitrate plant, but they were ambivalent about public vs. private operation; their main interest was cheap fertilizer. When Ford offered to take over Muscle Shoals and mass-produce fertilizer, most farm groups supported him. A look at some of the old Muscle Shoals hearings shows that most farm group testimony was technical: about how much fertilizers cost, the processes involved in using nitrogen and phosphates, etc. When Senator Norris would ask farm spokesmen if they felt Muscle Shoals should be publicly operated, they'd either take no position or call for "public ownership with private operation," i.e., leasing the plant (and the profits) to a private company. They also tended to be neutral on the power question—they didn't care whether power from the dam and steam generating plant was sold to private utilities or not. Congressmen Lister Hill of Alabama and John Rankin of Mississippi were strong proponents of public operation of Muscle Shoals. But by and large TVA was an outside idea, an institution imposed on an indifferent region by absentee idealists. There's nothing inherently wrong with this procedure, given the general lack of popular interest in socialist undertakings. The trouble is that idealists of Norris's caliber are few and far between. When they do appear they generally don't have the power, in the absence of strong local support, to overcome the economic interests that are opposed to radical change.

Power and Land

TVA's outstanding achievements have been in the areas of resource development and electric power generation. It tamed the flood-prone waters of the Tennessee Valley and opened up valuable channels of navigation in the process. It reclaimed millions of acres of eroded land through application of fertilizers and reforestation. And it transformed an area in which only one farm in 30 had electricity into one of the most highly electrified regions in the world.

The politics of TVA's approach to electricity are worthy of note. TVA didn't just build dams, as federal agencies out West did. It decided early on that there was no place for private utilities in the Tennessee Valley. It encouraged farmers to set up

cooperatives to distribute cheap power from TVA dams; the success of this program prompted Roosevelt to launch the Rural Electrification Administration. It urged cities to establish municipal power agencies; they did so in rapid succession. During this period, Knoxville voted 5,124 to 2,602 to switch from private to public power. In Memphis the vote was 32,735 to 1,868, and the results were similar in town after town. TVA completed its rout of the private utilities by buying up the properties of Commonwealth & Southern, a holding company whose president, Wendell Willkie, fought TVA at every turn and lost. Today only a single small private power company is left in Tennessee. TVA-spawned cooperative and municipal distributors reach into six surrounding states. Along the way, electric rates that were as high as five cents per kilowatt hour in 1930 were cut to one-fourth of that by 1972, though rates are rising now.

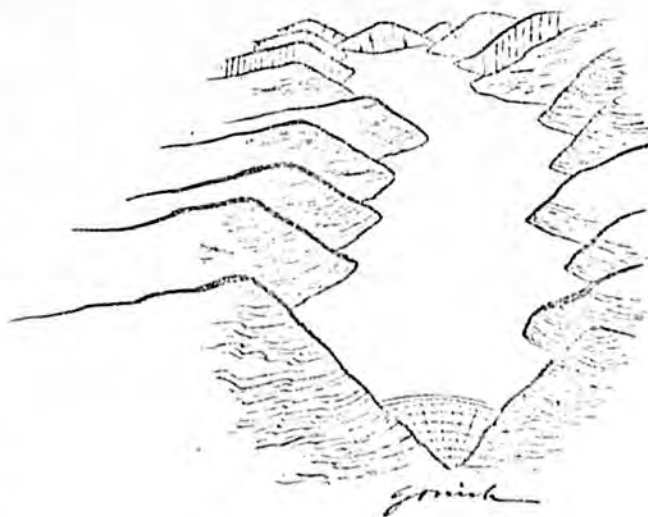
There are some sad subplots to this generally upbeat story, however. In recent years TVA's commitment to low-cost electricity has made it the world's largest purchaser of strip-mined coal. Nearly 80 percent of TVA's power is now steam generated, the hydroelectric capacity of the river having been fully captured by the 1950s. TVA's critics find it ironic that the agency that so dramatically restored the valley is now causing, through its use of strip-mined coal, vast destruction of hills and farms (mostly outside the valley).

Another unhappy subplot involves financing. In the early days TVA financed its capital outlays for electric power generation almost entirely from congressional appropriations. After Lilienthal negotiated the purchase of Commonwealth & Southern's electric distribution facilities, Congress authorized, and TVA issued, \$65 million in bonds to pay off Willkie's boys. The bonds, mostly at 3½ percent interest, were purchased by the Treasury and have since been paid back.

The massive expansion of the war and postwar years was also financed by congressional appropriations. But this practice was brought to a halt by President Eisenhower. (Eisenhower vowed to sell TVA if he could; if he couldn't, he at least would not allow any new projects.) For a brief period TVA was able to plod along on retained earnings and depreciation. This practice obviously could not last long, especially since TVA was committed to low rates.

In 1957, Eisenhower proposed that TVA be able to float bonds on the private market. In 1959, Congress agreed. Certain conditions had to be met: (1) TVA could not expand beyond its existing service

area; (2) it would have to repay gradually almost all previous federal appropriations for power, so that eventually there would be no federal "equity"; and (3) until the repayment was complete, TVA would pay the Treasury a "return" on federal equity pegged to the average interest rate on marketable U.S. securities. This is the law under which TVA presently operates.



The effect of the 1959 legislation was both to quarantine TVA geographically and to convert TVA into something increasingly like a private power company. It now must borrow (at rising interest rates) from the same folks on Wall Street the private utilities borrow from, and its payments to Wall Street will grow as its payments to Washington shrink. Private utilities generally maintain a 50-50 balance between debt and equity. TVA must finance new growth entirely out of debt. One result already is that rising interest costs have forced up TVA rates and lessened its comparative advantage over private utilities. When the federal equity (past appropriations) is all paid back—2016 is the magic year—TVA's power operations will be, in a real sense, "owned" by Wall Street rather than by the public. Eisenhower may then be seen to have killed TVA, not instantly by sale, but slowly by financial strangulation. Such are the perils of back-door socialism.

From the public standpoint, TVA was a very good investment. The total federal appropriation for power came to \$1.2 billion. TVA has already paid back more than \$1 billion and is steadily working off the rest. On a year-to-year basis, TVA's payback to the Treasury now exceeds the congressional appropriation to TVA for non-power-related activities. Thus, the notion that Washington is subsidizing the Ten-

nessee Valley is no longer true; in fact the opposite may well be the case. In addition, it must be remembered that the federal government has saved hundreds of millions, if not billions of dollars, by buying power from TVA rather than private utilities for its Oak Ridge, Paducah and Huntsville facilities (which serve NASA, the AEC, and the military).

TVA has the power of eminent domain. How to use this power, and how to use the land, are questions that have been hotly debated since the agency began. Technically, the TVA act gives the agency power to condemn land only "for the construction of dams, reservoirs, transmission lines, power houses, and other structures, and navigation projects along the Tennessee and its tributaries." In practice, TVA has condemned (or claimed power to condemn) land quite some distance from dam sites for such purposes as malaria control, tree nurseries, industrial sites, recreational areas, game refuges, and new towns.

In addition to land under and immediately surrounding its reservoirs and power sites, TVA now owns a 170,000-acre park called Land Between the Lakes; about 50,000 acres in coal reserves; about 30,000 acres on which it plans to build, or rather let the Boeing Corporation build, a new town; and small amounts of land elsewhere. It has acquired, and subsequently disposed of, quite a bit of land that is now owned by states and local jurisdictions (mostly for parks) and by private parties (mostly for housing subdivisions and industrial sites).

Controversies have arisen over how much "extra" land TVA should acquire beyond what is minimally necessary to build dams. Generally speaking, the agency was boldest in its early days and has been increasingly conservative since. For its first project, Norris Dam, TVA purchased thousands of acres upstream from the dam site which it turned into parks. It built the new town of Norris originally as a very progressive "construction camp." Within the agency, the chief advocates of excess land acquisition were the foresters, conservationists, and planners; the chief opponents were those interested primarily in agriculture. As agriculturalists gained the upper hand within TVA, excess acquisitions were gradually reduced to thin strips around the reservoirs, and in some cases not even these were acquired. (Philip Selznick has a good chapter on this in his 1949 book, *TVA and the Grass Roots*.)¹

For Tellico, one of its current projects, TVA has acquired some 30,000 excess acres that will be used for a new town called Timberlake, about 30 miles south of Knoxville. The Tellico Dam project is

controversial for a number of reasons, of which Timberlake is the least so; indeed, Timberlake is one of the strongest justifications for the project. The agency's notions of how to build new towns are much less radical, or at least much less "public," than in the days when Norris was built. Having acquired the land for Timberlake, TVA will sell it to private developers (the master developer and coplaner with TVA is Boeing). The developers will in turn subdivide it and sell it to the new residents and industries. TVA will capture some of the increase in land value resulting from the development, which will be used to cover its land acquisition and other costs. Boeing and the other developers will also cash in on the land gains—without, of course, having paid for the dam that created the townsite with its lakefront values. When I asked TVA's chief planner, Mike Foster, why Timberlake wasn't being built as a cooperative or by a public corporation, without Boeing, he answered: "Our judgment is that you can't get the investment you need unless you get the private developer in there. We don't have a public new town philosophy like they do in England." As a specific example, he noted that they want to build golf courses in Timberlake, and you can't get federal financing anymore to build golf courses. Also, part of the town will be recreational second homes, and there's no public money for them either.

TVA never became greatly involved in agricultural land reform. Despite the urgings of radicals, it never tried to do what the Farm Security Administration was doing in the 1930s, i.e., making land available to tenants and sharecroppers. If a small farmer was displaced by a dam project, TVA would get him about the same size farm somewhere else. If a tenant was displaced, TVA would set him up as a tenant somewhere else. The reasons TVA never interested itself in agricultural land reform are well spelled out by Selznick. Those who ran TVA's agricultural department had come from land-grant colleges and were not concerned with social reform. The reasons TVA got hooked up with land-grant agricultural experts rather than reformers in the first place have to do with personalities and politics, and will be commented on below.

Economic Plan

At various times in the agency's history, various people proposed that TVA own timber, cement, aluminum, fertilizer, and coal facilities—in addition, of course, to electric power. Generally, these suggestions were not far-reaching, and they didn't lead to

any dramatic results. Yet the very fact that they were made is of some interest in light of today's timid approaches to public ownership.

Timber ownership plans were put forward by early TVA foresters. Edward Richards, chief TVA forester from 1933 to 1939, said in 1934:

To make possible the proper use of marginal lands, reforestation and erosion . . . ownership of the land in fee is necessary. This is for the reason that complete control of what is done on the lands necessitates full ownership.

David Lilienthal observed in his journal for 1941:

Private ownership of woodlands and timber lots was an important point in our agricultural program six or eight months ago, but my observation is that it isn't working and that in order that a few poor devils of farmers may get a miserably small amount of money, we may be loading up for the future a public expenditure of enormous proportions to heal the erosion on the hillsides now being cleared. That is wasteful and nonsense . . . Isn't this the time for TVA to buy and put out of private hands enormous areas of timber and have it cut on some basis that will not ruin us 25 years from now?

Clearly, the motive behind public timber ownership ideas was conservation, not economic reform. I did not run across any proposals to build public pulp and paper mills and lease cutting rights to low-income woodcutters under a scientific harvesting and replanting program. In this sense the TVA ideas never went beyond the ideas of Gifford Pinchot and the U.S. Forest Service.

Interest in a TVA-owned cement operation flickered during the early days of massive dam-building, when TVA found itself confronted by cement industry price fixing. Arthur E. Morgan, TVA's first chairman, brought the matter to the attention of the White House. He recommended that TVA set up its own cement manufacturing plant. But FDR and Harold Ickes, secretary of the interior, favored forcing the industry to change its pricing practices, which is eventually what happened.

The interest in coal ownership arose in the 1960s for similar reasons. TVA's demand for coal was soaring, while competition within the coal industry was declining and coal prices were steadily rising. Consequently, TVA acquired coal land in Tennessee, Illinois, and western Kentucky. It apparently never seriously considered mining the coal itself; it simply

wanted to get a guaranteed long-term supply at a price that could not be raised without some good excuses. It put the Kentucky land out to lease, and there was only one bidder—Peabody Coal, which now mines the property for TVA and produces about seven million tons annually, or one-fifth of TVA's consumption. At a 1972 hearing of the House Select Committee on Small Business, TVA Chairman Aubrey J. Wagner was asked if the Kentucky operation now gives TVA a pretty good yardstick on coal prices. The following dialogue occurred:

Wagner: *We hope that it will . . . It is a contract operation. We are not doing the mining ourselves but we will perhaps—*

Rep. Neal Smith: *You will have access to all the figures though.*

Wagner: *I believe so—at least where the changes in price are involved.*

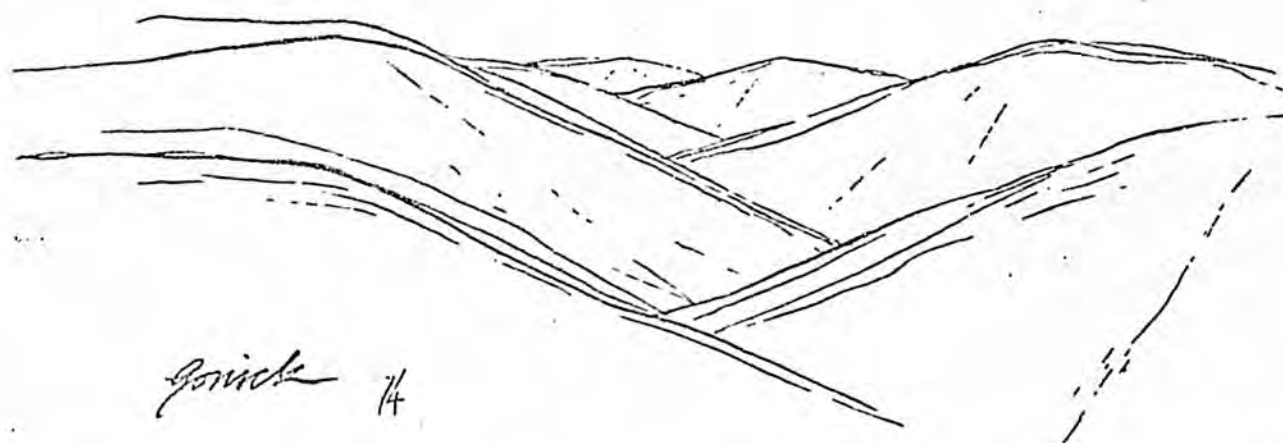
Smith: *Has TVA sought to acquire its own railroad to haul hoppers?*

Wagner: *We have not bought coal cars. We have considered it but the problem was solved for us before we had to do that.*

The idea of a government aluminum company was advanced by many New Dealers during World War II, when millions of public dollars were being poured into constructing aluminum plants. In terms of public enterprise, things had regressed a good deal since World War I. Then, under the Defense Procurement Act, the government took over the railroads, built and owned such facilities as Muscle Shoals, and held on to the facilities after the war. This time, despite the pleas of Lilienthal, Thurman Arnold, Lister Hill, Robert LaFollette, and others, the public investment in aluminum was turned over to the Reynolds and Kaiser families.

Lilienthal's journal for July 8, 1941, outlines his thinking:

I am pitching again on the TVA aluminum-alumina plant. Last night I met with Kenneth Galbraith, assistant to Leon Henderson (of the OPA [Office of Price Administration]). We spent a couple of hours discussing the whole matter. It seems that the OPA is preparing a memorandum for the President in response to his request for their comment on the TVA aluminum plant idea. The discussion revealed the weaknesses in the out-and-out yardstick idea as applied to aluminum. Without detailing, it is only necessary to say that the problem of ore supply complicates the matter; also the yardstick termi-



nology may be a tactical disadvantage The most troublesome feature of the whole business is that we have no legal authority. It is a little bit absurd, because now aluminum is entirely a defense product, since there is no civilian supply, and the government is the sole purchaser. But for us to seek special legislation would involve not only delays, but a terrible lot of punishment and no assurance at all as to the result.

In the one business other than power that TVA did get into—fertilizers—it quickly chose the role not of large-scale producer in competition with private chemical companies, but of experimenter and developer of new products and manufacturing processes. These are then licensed at nominal cost to private companies. In other words, TVA has assumed the risks of the fertilizer business while leaving the profits to the private sector. This is not what farm people had in mind during the 1920s when they wanted cheap, mass-produced fertilizer from Muscle Shoals. But it is in keeping with TVA's generally conservative policies in agricultural matters, which contrast with its more radical approach to electric power. TVA contends that its fertilizer program has made everybody happy—the agricultural extension service, the private chemical companies, and the farmers—because competition within the fertilizer industry has passed on the benefits of TVA innovations and kept fertilizer prices down.

Young Turks and Elder Statesmen

Almost any bureaucracy will, with age, lose its boldness, imagination, and lust for battle. This is a problem that has confounded liberals and radicals alike. There are no ready solutions.

TVA, now 41 years old, is no exception to the general rule. The TVA act created a three-man board,

with board members appointed by the president and confirmed by the Senate. The contrast between the first directors and the present chairman reflects the differences between the young TVA and the middle-aged.

The first chairman, Arthur E. Morgan, was the archetypical "super-idealist" (and still is, at 96). An engineer, he'd been president of Antioch when that college was first challenging traditional academic concepts. He had visions of new towns and subsistence homesteads and regional planning and all kinds of sugarplums. However, for some reason he was "soft" on private utilities and soon clashed with David Lilienthal, a lawyer who had served on the Wisconsin Public Utilities Commission under La Follette and was a hard-liner on public power. The third original board member was Harcourt A. Morgan, an agriculturalist who had been president of the University of Tennessee. H.A. Morgan was not exactly a super-idealist. Indeed, he is Selznick's chief villain for being the stalking horse of the conservative agricultural establishment. But Lilienthal got along grandly with him and thought him a noble, if not radical, character.

A.E. Morgan and Lilienthal attracted scores of young turks to the newly formed agency, mostly from outside the Tennessee Valley. One of those young turks is the present chairman, Aubrey J. ("Red") Wagner. He had just completed his engineering degree at the University of Wisconsin and headed straight for TVA. He rose in the navigation department, became general manager in 1954, and in 1961 was appointed by Kennedy to the board. Nixon reappointed him in 1969, a sign that by then he was none too bold or daring.

I had a fairly long talk with Wagner. He struck me as a well-meaning, totally nonideological but basically liberal man. His commitment is to low-cost power, not public power per se, and he doesn't think the

private utilities are particularly bad; he works with them closely on lots of things. His "broad vision" for TVA is that it can help bring jobs to rural areas and teach city folks about nature in Land Between the Lakes. When I asked Wagner if he thought a federal energy corporation was a good idea, considering how the private oil companies have forced up the price of fuel (including TVA's coal), Wagner replied—mainly, I think, to be friendly—that it was "worth looking into." The response was tepid. By contrast, Lilienthal actively pushed for a federal aluminum corporation and many regional TVAs.

The term of office for board members is nine years. The idea, apparently, was to span two presidential terms to make the job as nonpartisan as possible. There have been no real firebrands since the first board. Several appointees have been defeated politicians in need of jobs; some have come up through the ranks like Wagner; some have represented conservative interests; most have not been from Tennessee, though there has usually been at least one local out of three. There are really no checks on the board members' power, although the president can remove them if he sees fit. When the A.E. Morgan—Lilienthal feud got too troublesome, for example, FDR relieved Morgan of his post. Morgan sued, claiming the president had no such authority, but the courts upheld Roosevelt.

To staff the agency, the TVA act authorized the board to hire employees "without regard to the provisions of the Civil Service laws," and to remove employees at its discretion. The law also provided that, in the hiring and promotion of employees, "no political test or qualification shall be permitted or given consideration, but all such appointments and promotions shall be given and made on the basis of merit and efficiency."

These provisions have worked out well, at least with regard to competence and nonpartisanship. Everyone agrees that there has been no political influence on TVA hiring, little if any corruption or nepotism, not much incompetence, and generally a good performance for a government bureaucracy. The record with regard to race and sex is not outstanding, as TVA itself admits, but on the other hand it hasn't been blatantly racist, as some agencies in the South have been. In its dealings with construction workers, TVA gave early recognition to trade unions and engages in a kind of collective bargaining with them (ostensibly the issue is to determine what the "prevailing" wage level is). There have been a few slowdowns and brief stoppages but no long strikes.

Generally, local people are hired for the blue-collar and low to middle-level office jobs. The higher level and more skilled positions are, like the board directorships, often filled by outsiders. These higher level people tend to be "good," in that they are competent and dedicated. They don't, however, tend to be very radical or imaginative, as many were in the old days.

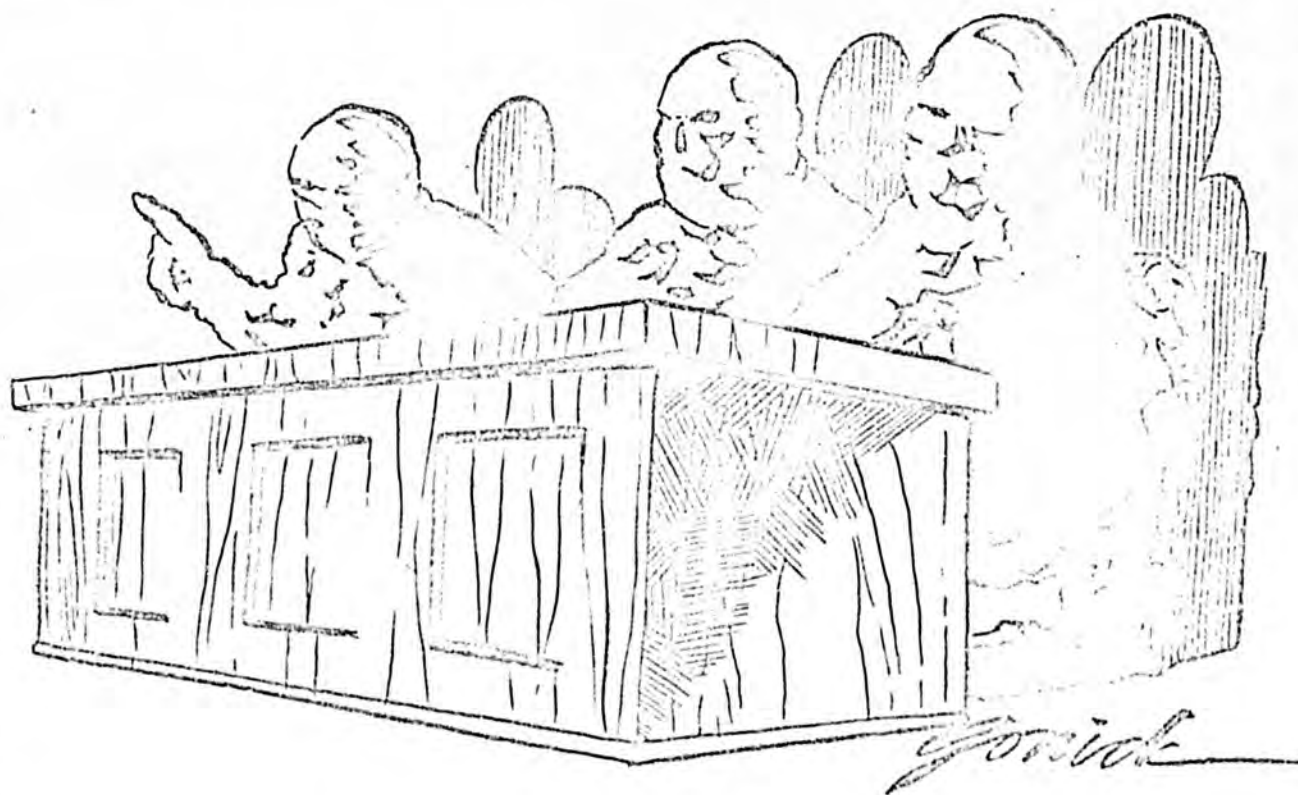
The absence of imagination in the 41-year-old TVA is reflected in many large and many little ways. It contracts out new-town development to Boeing. It has failed to launch a large-scale reclamation program, similar to the early farm and forest programs, to repair the damages wrought by its own quest for coal. It has continued to be obsessed with dam building, despite the fact that new dams contribute only marginally to hydroelectric power and flood control capacity while they destroy some of the few remaining wild water stretches in the region. And it maintains its faith in the "trickle-down" approach to development (discussed below).

In TVA's case, the decline in feistiness is more understandable than it might be for other bureaucracies. TVA spent its early years embroiled in controversy, chiefly over public power. It could not fight too many other battles simultaneously or subsequently. Those early struggles, writes John Moore of the University of Tennessee, were bound to take their toll "through a creeping exhaustion on the part of those who have fought a good fight for years but who, perhaps unknowingly, gradually tend to avoid further controversy by modifying their original objectives."

"Grassroots Democracy"

Making a government agency responsive to the people it ostensibly serves is as difficult a task as keeping a bureaucracy vital and imaginative. Though TVA's directors are chosen from on high in Washington, rather than by the people of the Tennessee Valley, TVA prides itself on its practice of "grassroots democracy." By this it means working wherever possible with state and local governments and civic groups, and sometimes—as with the rural electric cooperatives—stimulating the creation of new institutions where none had previously existed. All of this is well and good, given the generally Olympian detachment of federal agencies. But if an agency has radical goals, it must be careful in choosing which grassroots to water.

By and large, TVA has chosen the more progressive elements of the established business and agricultural communities, as well as the managers of the new



industries it attracted to the Tennessee Valley. It generally shunned the poor, the landless, and the black. Thus: one of TVA's favorite success stories involves Decatur, Alabama. Lilienthal visited Decatur in 1935 and met with a small group of what are usually called "public minded citizens" or "progressive business leaders." Among them was Barnett Shelton, publisher of the local newspaper, who years later told this story:

Dave leaned his chair back against the wall and the twinkle of a smile came into his eyes, as he said gently and firmly, "I'm not going to do anything. You're going to do it."

Our first step was to form our own Chamber of Commerce, formed at a time when most people didn't believe it could be done We then decided we were going to develop a cash market every day in the year for every farm product grown in the Decatur area. We were going to welcome industry, but not wait for it. We were going to develop our own farm processing plants.

We decided a packing plant would be the first venture and persuaded the local ice company to put in packing plant facilities when there wasn't as much as one wagon load of hogs in our whole county. We are now producing our own livestock to meet the demands of this market.

We then turned to milk, formed a little corporation with a paid-in capital of \$15,000, telling every stockholder to forget his investment, that he would never receive any return from his money. What we were trying to do was establish a payroll every two weeks for the farm families in our section.

To make a longish story short, milk started pouring into the plant and the stockholders make a tidy profit. Then a big flour firm built a mill along the riverbank at Decatur. Farmers could sell grains to the mill, getting cash for products for which there had previously been no market. Soon other industries located in Decatur, and now the area is thriving agriculturally and industrially.

Nowadays TVA tries to repeat this process by getting "public spirited citizens" together to form local or regional planning groups, usually linked to some TVA project. These groups survey local resources and needs, aided by TVA experts, and then try to get something going. A good example is the Elk River Development Association in northern Alabama. The lower Elk valley is a rural area that is starting to get the population overflow from Huntsville and its aerospace facilities. People who want the area to retain its rural character came to TVA and asked for help. Together they came up with a plan for a series of planned rural villages surrounded by commonly

owned open space. TVA is now trying to get Washington to cough up \$9 million to start a revolving fund with which the villages will be built.



In its agricultural programs, TVA's chief objective was to teach farmers how to improve their land and their yields by using fertilizers, switching to less soil-depleting crops, and generally adopting more modern techniques. Farmers who volunteered to become "demonstrators" would receive free fertilizers and technical assistance. In exchange, they had to show neighboring farmers the results of their newly learned practices.

A more radical approach to "grassroots democracy" might have led TVA to help set up low-income cooperatives, community-owned enterprises, and subsistence homesteads, and make its aid and expertise available to them. TVA chose to work primarily with established businessmen and farmers who already owned land for two main reasons: (1) it was politically safer, and (2) it produced faster results, if results are measured in terms of acres reclaimed and business revenues generated. In choosing this approach, TVA didn't see itself as ignoring the poor, the landless, and the black. It simply assumed that by working with progressive capitalists, growth would occur and benefits would "trickle down" to those without land or capital.

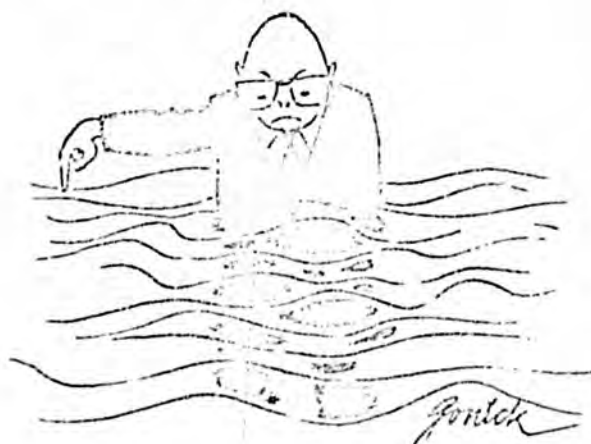
From a political standpoint, TVA's approach appears in retrospect to have helped it survive. TVA emerged unscathed from the 1938 congressional investigation in large part because it had the support of the farm establishment and the local bourgeoisie. By contrast, the Farm Security Administration, which pursued the more radical approach that TVA shunned, was destroyed in the early 1940s by the same farm establishment that was supporting TVA. It might be argued that now that TVA is firmly ensconced, it could be more radical than it is inclined to be. The problem here, as noted earlier, is that 41-year-old bureaucracies are almost never inclined to be radical.

A final point is that TVA has always seen its role—and properly so, given its congressional mandate—as *developmental* rather than *redistributive*. Thus, it naturally made alliances with those most capable of influencing development. Thus, too, it valued social harmony and had no desire to promote class conflict.

It may well be that the same agency, for political reasons, cannot be developmental and redistributive at the same time, at least not in the context of American capitalism. And since the problems of backward regions—the South, Appalachia, rural areas and inner cities generally—appear to most liberals and many back-door socialists as developmental rather than redistributive, the agencies they set up will almost always be developmental. Lilienthal's subsequent work is right in this pattern. He has gone around the world helping third world nations set up TVA-type development agencies, always working with the "progressive" ruling elements in those countries. This means, among other things, that liberals and back-door socialists must be re-educated to see inequality as more a distributional than a developmental problem, and that new techniques must be developed to redistribute and develop simultaneously.

Could TVA have played a more radical role than it actually did, both within the Tennessee Valley and nationally? As I read the history of TVA, its stance was pretty much determined by (1) the political limitations of applying radical programs in the South, and (2) the personalities of the first three directors. If Arthur Morgan had gotten along with Lilienthal, and if Harcourt Morgan had been more of a radical (or if a farm radical had gotten his job), then possibly, just possibly, things might have been different. As it turned out, there was a trade-off: a conservative farm policy was the price for a radical power policy. Given the lack of any significant local support for *either* a radical power policy or a radical farm policy, that may have been the best possible deal.

Then again, it may not. TVA's critics from the left—e.g., Selznick and Rexford Guy Tugwell—contend that less adhesion to "grassroots democracy" (Tugwell called it "grass-tops democracy") would have made TVA more radical.² "Grassroots democracy," they argue, was in reality a protective ideology designed to justify TVA's co-optation by conservative agricultural interests. It also gave the agency some degree of local legitimacy; as an absentee corporation it could have been subject to charges of "carpet-



bagging" and pushing people around. Tugwell concludes:

If we really want to make administration more democratic, we ought to regard the grassroots approach with suspicion . . . In the South grassroots democracy can only mean the exercise of the powers of government by the white planters; elsewhere it must mean control by and for the prosperous farmers who have hired men to do their work while they go to committee meetings. The plain fact is that if most farm communities are to have democratic administration they will have to import it from Washington.

These observations shed light on another dilemma presented by TVA: could the agency have been made more responsive to low-income people by making it less of a top-down operation—for example, by having a popularly elected board? The rhetoric of the left, with its emphasis on "community control," automatically rejects the image of a socialist institution managed by presidentially appointed directors who are essentially nonremovable. Yet my guess is that a

"democratically controlled" TVA would have turned out worse than the real one. Low-income people do not dominate the politics of the Tennessee Valley; they would have had a hard time gaining control of TVA.

The inescapable conclusion seems to be that if we want community-controlled institutions, we will have to spend a long time educating low and perhaps middle-income "communities" (and I'm not even sure that enough such "communities" exist). If we want public institutions that can play catalytic roles in redistributing wealth and building a radical political constituency, then at least for the short run we will have to accept a hard-nosed, top-down approach. TVA's failure as a beachhead of socialism is in large part a result of its failure to be hard-nosed enough, especially in building a political constituency that would support it on its own terms. The ultimate lesson of TVA may therefore be that back-door socialism in America must do more than build institutional islands. It must use those islands to nurture a popular movement so that eventually socialism can march in the front door.

W

FOOTNOTES

1. Berkeley: University of California Press.
2. See the review of Setznick's book by Tugwell and E. Banfield in *Public Administration Review* vol. 10 (1950).

I. DEFINING LAND BANKING

In the very broadest sense, land banking can be defined as any public program for the acquisition of a land reserve for future use.¹⁰ To the extent that it has been proposed as a tool for dealing with urban growth problems, it has generally had two objectives: (1) providing a mechanism by which public agencies can direct where development can take place and the nature of that development, and (2) exerting an influence on land prices in order to keep them at a "reasonable" level. To achieve these purposes, a land bank must involve the advance acquisition of large tracts of undeveloped land by a public body for subsequent disposition to public

¹⁰ In an historical sense, the acquisition and disposition of the lands in the Public Domain can be considered a form of land banking and some commentators have suggested that this very significant national experience serves as an adequate precedent for contemporary efforts at land banking. In view of the fact that the programs for dealing with the Public Domain were only incidentally related to establishing urban settlements, and certainly had no relationship to the problems of urban growth as viewed today, the idea of using this as a precedent would seem to be dubious. Equally, it has also been suggested that the management of the federal public lands is an appropriate analogy to land banking. The Public Land Law Review Commission did consider the problem of using some of the public lands for urban purposes and recommended: "A new statutory framework should be enacted to make public lands available for the expansion of existing communities and for the development of new cities and towns." One Third of the Nation's Land, U. S. Government Printing Office, Washington, D. C., 1970, p. 226. However, all but the tiniest fraction of the public lands are remote from our major population centers. For the failure of one effort to use federal lands for urban problems, see Martha Derthick, New Towns in-Town: Why a Federal Program Failed, Working Paper No. 112-21, the Urban Institute, Washington, D. C., June 1970. Insofar as the potential use of federal lands for new town purposes is concerned, it remains to be established whether it is possible to foster the growth of such communities in remote locations except as an ancillary function in conjunction with the establishment of major new economic activities (e.g., Los Alamos).

entities for a broad range of developmental purposes. Generally, and not necessarily, the land involved is at the periphery of urban growth. In this sense that this paper will generally deal with land banking except in the last chapter in which more limited forms will be considered.

This definition uses the phrase undeveloped land in order to clearly differentiate land banking from the urban renewal process which is primarily concerned with the acquisition and disposition of developed land--the process which is inhibited by the presence of slum structures or blighting conditions. Since urban renewal achieves its price objectives through a substantial write-down and tends to focus on relatively small areas within a single jurisdiction, the problems of that program are significantly different from those involved in land banking in the more general sense. However, urban renewal does provide the only current significant American experience with the acquisition and disposition of land, and this analysis of the problems of land banking will be heavily dependent upon the experience of the urban renewal program. It should also be noted that while urban renewal is concerned with reducing land prices within the specific project area, it is concerned with increasing land values in the surrounding area.¹²

Section 110(c)(1)(iii) of the Housing Act of 1949, as amended, does authorize the use of urban renewal powers and funds in predominantly open or undeveloped areas, but subject to a number of restrictions which have severely inhibited their use. The precedent and authority of that Section might be cited in support of a federal-local program of land banking, but consideration of the urban renewal ground rules would be necessary to determine if such an effort on the scale being discussed in this paper.

For example, Economic Analysis of Urban Renewal, Brookings Institute, 1966, notes the increase in land values in surrounding areas as one of the major measures of the effectiveness of urban renewal. On the interrelationship of land value and price, Grace Milgram, The City Expands, Department of Housing and Urban Development, 1967, comments on the paradoxical result of increasing land values and the almost universal displacement of increasing land prices.

In many cases, private interests engage in the equivalent of land banking through the assembly of very large tracts for subsequent development. This often results in some of the desirable effects sought by land banking proposals--a far better and more efficient pattern of development than the more normal fragmentary development process and, to some extent, lower housing costs to the consumer.¹³ However, it is dubious that such private activities are a substitute for public policy because under current conditions opportunities are severely limited. Indeed, where they have occurred, there is usually some fortuitous element of land assembly involved which limits the possibility of replication.¹⁴ Title X of the National Housing Act provided federal mortgage insurance for land development in order to encourage large scale private land assemblies. Thus far, it has found very little use by the private market.¹⁵ In any case, a public

¹³The economists describe the beneficial effects of large scale development as "internalizing the externalities." In layman's language, this means that a large scale developer keeps within a single pot the values generated by the housing he builds and the shopping center built to serve the housing. It is difficult to say to what extent the benefits are passed on to the consumer, but it can be observed that large scale assembly when coupled with building efficiency seems to result in some of the best housing values to be found. See Eichler and Kaplan, The Community Builders, University of California Press, 1967.

¹⁴The Irvine Ranch in California represents the development for urban purposes of a large scale agricultural holding kept together from the time of an old Spanish land grant. Reston in Virginia is similar--although on a significantly smaller scale. The developer acquired the land intact from the former agricultural holder. The land for Columbia, Maryland, was put together from a brilliant "cloak and dagger" land assembly process. One observer has commented that a land assembly process such as that at Columbia can be carried out once in a metropolitan area, but never twice.

¹⁵Title X was enacted as part of the Housing and Urban Development Act of 1965. As of December 31, 1968, only nine projects had been insured for a gross mortgage amount of \$5,348,000. Source: 1968 HUD Statistical Yearbook, U.S. Department of Housing and Urban Development, U.S. Government Printing Office, Washington, D.C. Section 119 of the Housing and Urban Development Act of 1970 attempts to deal with part of the problem by a partial waiver of the comprehensive planning requirement of Title X.

program for land banking must have very significant differences from similar private activities if for no other reason than that it must operate subject to general scrutiny and cannot depend on any single fortuitous finding of assembled land.

To a certain extent, a limited type of land banking is now carried on by a number of governmental units through the advance acquisition of land for subsequent public uses.¹⁶ Highway commissions will acquire rights-of-way, and farsighted boards of education acquire school sites in developing areas, both well in advance of immediate need. In other cases, such policies may be extended to a wide range of public facilities. Section 704 of the Housing and Urban Development Act of 1965 provided financial assistance for such activities.¹⁷ Also in the category of public use, we must consider the acquisition of land for open space and park purposes supported by federal financial assistance.¹⁸ But for these programs there is built in an intent to prevent future development.

These public facility land acquisition activities must be differentiated from broader scale land banking proposals on a number of grounds. Their objectives are limited to optimizing the land acquisition process for very narrowly limited public purposes. They have no disposition problem

¹⁶ See Donald C. Shoup, Advance Land Acquisition by Local Government, U.S. Department of Housing and Urban Development, 1968.

¹⁷ The assistance provided in Section 704 was limited to a grant equal to the interest cost on bonds issued for such acquisition for a period not to exceed five years. In general, land acquired with such assistance must be put to the specified public use within five years. No funds were requested for this program for fiscal year 1971 and it appears as though it is being phased out.

¹⁸ These are the HUD open space program and the Department of the Interior's outdoor recreation program.

except insofar as there may be involved some procedural difficulties in intra-governmental transfers. They are relatively small in scale with very little spillover effects in the private market.

VI. FINANCING LAND BANKING

For a land bank to be operationally effective, it must purchase control of a significant portion of the land where growth is occurring or might occur. There are too many variables involved to quantify in any but the crudest fashion the finding required, but it is adequate, for present purposes to say that it will be very large.³⁷

GENERAL OBSERVATIONS

Before going into the specifics of how this financing might be managed, a number of general observations should be made:

1. Because of the vast sums of money involved, it is hardly likely that a land bank would be expected to enter immediately into a fully operational phase through a "quick taking" of all needed property. Thus financing would be an incremental process.

³⁷ Using heroic assumptions and dubious data, a crude estimate of the magnitude of financing required to start up a nation-wide land banking effort can be made as follows: The Kaiser Committee estimated that the achievement of the national housing goals will require the consumption of fringe land around major metropolitan areas of roughly one million acres per year. If we assume (quite arbitrarily) that land banks must have in their inventory the equivalent of five years' consumption, they will therefore have to acquire five million acres. Schmid, *op. cit.* p. 21, cites NAHB estimates for the national average price paid per acre for "raw usable land" in 1964 as \$3,878. Using an inflation factor of 10% per year for land suitable for development (below the lowest estimate reported by Milgram in U.S. Land Prices--Directions and Dynamics, p. 55) we would arrive at a current estimate for 1970 of roughly \$5,000 per acre. Thus, the overall cost of the working inventory for a national land banking effort would be about \$35 billion.

2. The financing of a land bank will have no direct net effect on the Gross National Product since all that will be involved is transfers of ownership from the private sector to the public sector and subsequent retransfers as land is released for development. There may be indirect effects: if more orderly urban growth patterns result in greater economic efficiency, there will be a positive effect on the GNP. Present land owners will have their relatively illiquid holdings converted to cash, which could provide an influx to the credit market to meet the financing needs of land banks.

3. In fairly simplistic terms, the financial planning for a land bank must be considered in two phases--the build up of operating inventory, and actual operations. During the build up phase there will be a continuing need for additional new investment with little, if any, offsetting revenue. The duration of this period is problematical. As previously noted, in the Swedish experience there was a thirty year gap between land acquisition and development. In American urban renewal experience with large projects, a ten year gap between the beginning of acquisition and significant disposition is typical.

4. Land banking may or may not be financially self sustaining (or even revenue producing) depending on the strategies and methods used. To the extent the bank sells land for development at market prices, it may generate substantial profits--if its holding costs are lower than those of other investors in land.³⁸ On the other hand, land acquired and indefinitely held out of production in order to shape development would constitute a net financial loss.

³⁸ See footnote 24, p. 13.

5. Land banking must be conceived of and financed in terms of very long term goals, yet it must also be capable of rapid response to take advantage of unexpected opportunities for property acquisition. Because of this need for flexibility, a bank should not be dependent upon any single source of financing.

DEBT FINANCING

Because land banking will require very large financial resources on a long term basis, there is no question that the bulk of the funding involved will have to be raised through debt financing. The particular instruments involved are probably of little significance. What is far more important is the consequences flowing from the assumption of a large debt service burden and how these are likely to affect the freedom to make valid public policy decisions about the rate at which land will be released for development, the uses which will be permitted, and the prices to be charged.

Debt financing is only feasible when the investors in that debt believe that there is a reasonable expectation of future payment of principal and interest. For a land bank to obtain such financing, it would have to commit itself to policies which would assure that the bank would, in the long run, obtain enough aggregate income from the disposition of land to cover its acquisition and debt service costs.³⁹ Given this constraint, one may very well question how easy it would be for the bank to meet any significant social objective.

³⁹ A government guarantee may influence market decisions about the security of the debt, but the guarantee is not a substitute for an acceptable financing plan. Thus, the bond market still sets differential prices on various local housing authority and urban renewal bonds despite the existence of a uniform and unconditional Federal guarantee.

An alternative to a policy commitment to self-sustaining operations would be to have a government agency with adequate revenue resources prepared to provide sufficient subsidy to meet deficits which might be incurred.

APPROPRIATIONS

At least for its start-up costs, a land bank would have to be financed from direct governmental appropriations. Appropriations might also be required to meet any subsidy costs.

There are only a limited number of sources of governmental appropriations which have to be considered. At a local level--either that of a municipality or some metropolitan agency--fiscal problems are so great that there would appear to be little likelihood of significant revenues being available to provide much support to a land bank.⁴⁰ The states and the federal government would be the more likely sources of the initial funding as well as any continuing subsidy.

SPECIAL REVENUE TRUST FUND

One of the great dangers of a dependence upon appropriations is the possibility that the appropriations will dry up with changing winds of fiscal policy or politics. A traditional device for dealing with this problem is the establishment of a trust fund with some uniquely designated source of revenues.⁴¹ For a trust fund to be politically acceptable, there

⁴⁰ On the more limited scale of local urban renewal projects, the local share of the net costs is predominantly provided as non-cash contributions.

⁴¹ Outstanding examples of such an approach are the federal and state highway trust funds in which revenues from gasoline taxes and motor vehicle registration are dedicated to the construction of roads. From a broad public policy viewpoint, there are many problems involved in establishing special revenue trust funds. This paper will not attempt to deal with them.

must be a reasonable relationship between the revenue source and the use to which it is put. In the case of land banking, some possible sources which might be considered include:

1. The imposition of transfer fees in connection with real estate transactions.
2. Allocation of capital gains taxes in connection with land transactions.
3. Allocation of increments in property taxes resulting from increased assessments in land values.

In connection with the last suggestion, Marion Clawson has proposed⁴² that a land banking operation could probably be funded in a large measure from such a source if there were significant reform in the taxing system to rapidly and accurately reflect increasing land prices resulting from land banking itself. This would be feasible only if public policy so valued orderly development that it was indifferent to the price inflationary effects.

⁴²Marion Clawson, Suburban Land Conversion in the United States, Resources for the Future, Washington, D.C., 1969. Unpublished manuscript.

VII. LAND ACQUISITION

The first function of a land bank is to acquire an inventory of undeveloped land. How big that inventory would have to be in order to achieve its purposes, the methods used in selecting the land, and the procedures for acquiring the land all involve significant policy problems which could affect both the feasibility of achieving its objectives and its acceptability to the body politic.

THE PROBLEM OF CORRUPTION

It should be noted that the public acquisition of land has been a traditional source of corruption in this country. Venal official and venal landowner can conspire all too conveniently about which parcels are to be acquired and the valuation involved.

A comparison of the experience of two major federally-assisted land acquisition programs can give us some idea of the factors which tend to encourage or inhibit corruption. One of these, the federal highway program, has had its share of land scandals--it is a program characterized by a relative degree of freedom from public scrutiny in making right-of-way decisions and comparatively relaxed policies on acquisition and valuation methods. By contrast, the federal urban renewal program has been amazingly free of any land scandals. Partly, this is due to the inherent nature of the program, which requires tightly defined boundaries and close public scrutiny; and partly to the application of rigid policies with respect to acquisition and valuation.

For land banking, the implications of this experience would seem to be clear: if relative flexibility is felt necessary to achieve its purposes,

there must be a willingness to accept the possibility of corruption and scandal.

NEGOTIATED PURCHASE VS. CONDEMNATION

In Chapter IV, it was indicated that under current judicial criteria, the use of condemnation powers in connection with land banking could probably be sustained only if it were coupled to a fairly definite plan for the area involved together with expectation that the plan could be carried out in a reasonable time. For the purpose of analyzing the comparative merits of negotiated purchases and condemnation, we will ignore that legal complication and presume that a public land bank could choose between the alternatives without legal restriction.

Given this choice, it would seem clear that, from a public relations viewpoint, a land bank would have to make the maximum feasible use of negotiated purchases. Condemnation is essentially a brutal process which is bound to alienate the person whose land is taken, as well as others who may fear the same process. Where condemnation has been applied on any large scale, it has been in connection with activities which not only have met the judicial test of public purpose, but also the political test of public acceptance.

But even if the maximum use is to be made of the negotiated purchase approach, there must surely still be available the threat of condemnation. Where assembly of specific sites is needed the land bank must be able to enforce its will even though the present land owner is unwilling to sell to the bank. Furthermore, without the threat of condemnation, the bank would be subject to paying exorbitant prices.

USE OF FEE OR LESS-THAN-FEE ACQUISITIONS

Ownership of land is sometimes characterized as control of the "bundle of rights" relating to the land. It has been suggested a number of times that public purposes relating to land can be achieved through control of some of those rights--and presumably at costs less than that involved in acquiring fee simple title.⁴³ From the point of view of a potential land bank, such an approach is certainly worth careful consideration, particularly insofar as it would minimize the costs of keeping some land out of productive use.

The most successful use of less-than-fee acquisitions has been through scenic easements in connection with highway development. This device has been used on a fairly significant scale in both California and Wisconsin. However, in almost all cases the land over which the scenic easement was acquired was in agricultural use with little prospect of attaining urban values in the foreseeable future. For all practical purposes, experience with scenic easements has been as a defense against billboards rather than development. Whether the same success could be achieved in an urbanizing area remains to be established.⁴⁴

The other mechanism for less-than-fee acquisition which has been frequently suggested is the purchase of development rights. This approach has been tried once on a significant scale and foundered on the rock of

⁴³ See William H. Whyte, The Lost Landscape, Doubleday and Company, Inc., Garden City, New York, 1968, for an extensive discussion of the use of less-than-fee acquisitions for conservation purposes.

⁴⁴ The Department of the Interior did successfully change the nature of development of the Merrywood estate in Virginia through the acquisition by condemnation of a scenic easement. However, this situation was so specialized, tinged with political overtones, and costly, as to make it of very little use for generalization.

public acceptability.⁴⁵ As to why this particular plan failed, Allen Schmid⁴⁶ suggests the following hypothesis (which also casts useful insight on the general limitations of less-than-fee acquisition):

The area selected was in the very early stages of conversion from rural to urban use. At the outset of development, the development value has a very minimal present value. Development is coming, but it is far enough in the future to have only a small effect on present values. While the planners estimated that the development rights could be bought for three million dollars, this would not mean much for an individual propertyowner. This puts the propertyowner in a position of indifference. If he gives up his development rights now, he receives only a small amount above the agricultural use value of his land. While he may agree that this is all it is worth, the payment is just not a large enough sum to get excited about one way or another. If he sells, he gives up the hope that he might get a lucky break and become a millionaire when his land is wanted for a motel sometime in the future. While the motivations of landowners have never been systematically explored, it is the old question of the small immediate gain versus the uncertain, but large, future gain.

Conservationists have successfully used a number of acquisition methods involving the granting of residual right to present owners. Two such methods are acquisition subject to a life estate for the present landholder, and acquisition and leaseback. These, and related methods, are not panaceas and must be handled with great sensitivity. However, they are tools which should be available to a land bank.

While any land banking proposal must consider the potentials of less-than-fee acquisitions, they are still only potentials whose

⁴⁵ John C. Keene and Ann Louise Strong, "The Brandywine Plan," AIP Journal, January, 1970, p. 50.

⁴⁶ "Suburban Land Appreciation and Public Policy, AIP Journal, January, 1970, p. 43.

carefulness still remains to be proven in the type of situations which would be encountered in acquiring control in an urbanizing setting.

ACQUISITION PAYMENTS

Most public acquisition of land has been carried out on the basis of payment in cash for the full consideration involved. Strangely enough, the little evidence we have on how the private market operates indicates that immediate cash payment is rarely used. The freedom a land bank has in tailoring its payment methods to the needs of a specific situation may very well have a significant effect on the prices it will have to pay and the ease with which it operates. (Conversely, the greater the freedom, the greater the potential for corruption, or charges of corruption.) The variety of ways in which the consideration can be varied to meet the differing needs of buyer and seller are almost infinite, but the following are some of the more common devices used, together with some of their advantages and disadvantages:

1. Cash: During periods of tight credit, a land purchaser who can offer immediate cash payment may be in a position to obtain substantial price concessions. From the point of view of the seller, this does have the disadvantage that any profits are then immediately subject to capital gains taxation⁴⁷ (unless the sale is the result of condemnation or is made under the threat of condemnation). From the viewpoint of a purchasing land bank, a cash purchase means the early commitment of financial resources and the burden of the carrying charges on the amounts committed.

⁴⁷ Milgram, *op. cit.*, points out a case where a land seller demanded a higher price if the transaction was to be in cash.

2. Installment Purchase: This is a method normally used by large-scale developers who stage their building activities and prefer not to put their resources into land ownership until they are actually prepared to build. From the point of view of the seller, it also has the advantage of permitting him to spread his profits over several years for tax purposes. While the motives of a land bank using this approach may not be identical with that of the builder, there is no reason why it should not use the installment purchase approach both to defer its own need for capital and to provide leverage in negotiating with a seller.

3. Credit Purchases: A number of observers of the operations of the land market have suggested that a very large proportion of the purchases are made on the basis of credit provided by the seller. Since we have presumed that a land bank will receive a large part of its financing from the credit markets, there is no reason why such land bank should not use its own instruments of indebtedness as a direct medium of exchange for land purchases. Whether this mechanism could be effective, or how much it would affect the prices the bank had to pay, would very much depend on the desirability of those securities from the viewpoint of the seller. If, for example, an exchange of land for land bank securities were exempt from capital gains taxation so long as the securities were held by the original land owners, the securities might assume a value to the seller beyond their face amount. Other similar tax incentives might facilitate land bank operations.⁴⁸

⁴⁸ However, it should be pointed out that tax incentives do constitute a form of subsidy which should be costed out.

ACQUISITION CRITERIA: HOW MUCH?

Just how much of the undeveloped land in a metropolitan area would a land bank have to control in order to achieve its objectives? This is probably an unanswerable question in any general sense. There would be immense variations depending on the strategies employed, it would vary from area to area depending on its physical and economic characteristics and the dynamics of its growth process, it would probably have significant variations over time. The only general answer which can be given is: just as little as possible in order to achieve its objectives.

Most people who have suggested land banking have viewed its potential benefits from the position of an institution in being--few have weighed the costs of creating the institution as an operational entity. The very process of acquiring a sufficient inventory of land can be immensely disruptive to the development of an area. Insofar as supply and demand are significant determinants of land prices, the actions of the land bank in acquiring its inventory (or preventing use when undesirable) would drive up prices. Insofar as the expectations of land owners are a significant price determinant, the presence of a large, well-financed acquisition agency in the market would cause them to raise their asking prices even higher than supply and demand might dictate. All of this would end up being reflected in higher costs for new housing, public facilities, and all other economic functions which require land.

But wouldn't this be only a temporary effect which would be more than offset when the land bank reached an operational status in which it was disposing of land at a rate at least equal to that at which it was acquiring it? This is not at all clear because the bank would itself

have been caught in the inflationary spiral it had generated. In its attempt to corner the market--and this is what its net function would be--the bank would have been paying higher and higher prices for each incremental piece of property it acquired. To the extent to which a land bank had to be financially self sustaining, it would have to reflect these higher prices in its own disposition activities. If, on the other hand, we are talking about a land bank which would be receiving public subsidies, we would have to ask whether those subsidies could not achieve the desired public purposes more directly than through the operation of a land bank.

ACQUISITION CRITERIA: WHICH PARCELS?

No matter what the decision about the total amount of land which should be acquired by a land bank, it must go about acquiring that land parcel-by-parcel. What criteria should guide the bank in carrying this out?

If we presume a land bank guided principally by a concern for the control of prices, its approach to parcel-by-parcel acquisition would be that of any speculator--attempting to obtain the best bargains so as to have the greatest ultimate leverage at the time it is ready to begin its disposition activities. It would have to be acutely aware of the directions in which growth is likely to occur and sensitive to pricing patterns or to special opportunity situations. Aside from these factors, its selection of individual parcels of land could almost be random since it would make no pretense as to guiding the direction of growth. As with any other speculator, its greatest danger is making incorrect judgments as to the direction and timing of development activities.

If we presume a land bank guided principally by a concern for directing the pattern of growth, then we must assume that its parcel-by-parcel acquisitions are closely related to a plan for the area. This presents a number of problems:

1. The state of the art of planning is such that few metropolitan area plans deal in any precise form with the dynamics of the growth process to the extent that would be required to guide land banking. Perhaps the existence of a land bank might serve as the appropriate goad to the planning arts, but this must be treated as something which might occur in the future, rather than a present reality.

2. Close adherence to any public plan only makes the acquisition process more difficult and costly. It causes the land bank to operate in a restricted market (that defined by the plan) with all of its cards in the open. It is to avoid this situation that Swedish land banks carry out their acquisitions in advance of any public revelation of a plan.

3. If land bank operations are closely guided by a public plan, it will be forced to resort to greater use of condemnation powers than might otherwise be politically desirable. However, the very availability of the condemnation powers may be dependent upon the existence of a fairly tightly defined plan which can be carried out in a reasonable time period.

4. Since a land bank would be making very substantial investments based upon a specific plan, it would have to operate with some considerable assurance of the continuing political viability of that plan--as well as the commitment to provide the associated public facilities to carry it out.⁴⁹ To achieve this might require isolating the land bank, the planning

⁴⁹This is somewhat of a problem in the urban renewal program, but the latter operates on a smaller scale and shorter time frame than any land bank could.

agency, and the public works financing process further from the political process than is either feasible or desirable.

Buying Back the Land

A Proposal for California

by PETER BARNES

An idea for a land trust fund, which may be relevant to other states as well.

The land problem in California, as elsewhere in America, is both environmental and economic.

Open space in urban and suburban areas is fast disappearing. The last major open space area in the Los Angeles basin—the Santa Monica Mountains—is threatened with imminent development. The San Francisco Bay area is in better shape, but developers have marked large chunks of Marin, San Mateo, Santa Clara, Alameda, and Contra Costa counties for subdivision.

As the cities lose breathing space, people flee to the countryside for relief. But the unspoiled wilderness is also vanishing. Over half a million acres of California's mountain and desert land have been committed to second-home subdivisions within the past decade. Farmland is being gobbled up at the rate of 134,000 acres per year. And the oases set aside by the government for parks are being crowded to the bursting point. The larger state parks now require reservations weeks in advance. During 1968 and 1969, over 360,000 people were turned away from state parks and beaches. Public parks are getting so crowded that a San Diego syndicate is buying land for private parks and selling memberships for \$1,800 down plus \$96 a year.

Degradation of farmland is also part of the problem. Intensively irrigated areas of the Imperial and Coachella valleys are becoming so saline that they may soon be impossible to farm. On the west side of the San Joaquin Valley, the "mining" of underground water by large corporate farms has caused the land to subside by several dozen feet. Giant corporate and tax-loss feedlots are beginning to create substantial

waste disposal problems in many parts of the state. The most serious threat to man and nature is the vicious ecological circle of toxic chemicals. Extensive use of single-crop cultivation, pesticides, and inorganic fertilizers depletes the soil, reduces the variety and resistance of pests, and creates these problems large absentee-owned farms dump more chemicals onto the land. This leads to more pestilence, more pests, and more chemicals. Resident farmers, while often trapped on the chemical treadmill, are more inclined to sell their land. They live and work on it, may pass it on to their children, and can't afford to sell it for sums into the pockets of oil and chemical companies.

The concentration of land in a few hands creates many problems. Since the day in 1848 when gold was discovered in the Sierra Nevada foothills, land has been a monumental source of wealth. This wealth comes from assets that once were owned but are now controlled by a few corporations. Land itself, minerals such as gold and petroleum, and surface and underground water (geothermal energy and timber). The story of how these assets have been public to concentrated private ownership is related elsewhere.² Today a few large corporations—mostly railroads, oil companies, timber companies, and corporate farms—own the state's land and resources in a way that can be described as feudal. The recent study by the state that investigated California land ownership found that the ten largest landowners in the state own more than 12 percent of the privately held land. On a county-by-county basis, the study found that the top 20 landowners in each county own, on average, a fraction of 1 percent of the privately held land.

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generally own 25 to 50 percent of the land. In a compact urban county such as San Francisco, the ten biggest real estate owners (.0013 percent of the population) own about 8 percent of the assessed valuation. And the trend toward concentration continues.³

TABLE 1: The Top Ten

Corporation	Acres Owned in California
Southern Pacific Co.	2,400,000
Newhall Land Co.	1,600,000
Santa Forest Co.	479,000
Tenneco	363,000
Tejon Ranch	348,000
Standard Oil of Calif.	306,000
Bonne-Cascade	303,000
Georgia-Pacific	278,000
Pacific Gas & Electric Co.	250,000
Occidental Petroleum	200,000
Total	6,527,000
Total Private Land	51,200,000

The principal victims of this concentration of landed wealth are the rural and urban poor. Working family farmers are steadily being driven off the land by large corporations and tax-loss syndicates. In 1950 there were 137,000 farms in California, mostly under 250 acres. In 1960 there were only 77,875, a drop of 44 percent in 20 years. Landless farmworkers—89 percent of whom are employed by the top echelon of commercial farms (sales of \$40,000 and up)—are among the lowest paid workers in America. They too are steadily being displaced from the land by expensive new harvesting machines developed by the University of California for the state's corporate farms. In many parts of the Central Valley, small towns are literally dying.

The exodus from rural California intensifies the plight of the urban poor as well as that of the working and middle-class taxpayer. The job and housing markets stay tight, and welfare rolls increase. As poor people congregate in cities and suburbs, land values rise, in turn driving up the cost of housing. James Davis, vice-president of the Real Estate Research Council of Northern California, calculates that, on the average, land acquisition costs account for 27 percent of the total cost of new single-family houses in San Francisco (and a slightly lower percentage in the suburbs). Elliott Maltzman, a Los Angeles developer who tried building federally subsidized single-family houses for less than \$24,000, found that "with today's land costs and the costs of quality materials, you could produce nothing but instant slums."⁴

Buy Back California

What can be done to protect and share California's land?

Environmentalists have approached the problem in three ways. They've pushed for lower taxes on undeveloped land, higher appropriations for open space acquisition, and adoption of land-use plans and regulations. All three approaches have serious limitations.

The first led to passage in 1965 of the California Land Conservation Act, more commonly known as the Williamson Act, which permits assessment of undeveloped rural land at use value rather than at market value. The act has given million-dollar property tax breaks to large landowners but has done little to deter development. A study by the State Board of Equalization in 1972 found that more than 25 percent of the land assessed in accordance with the Williamson Act is owned by 12 large corporations. Together these corporations enjoyed reduced property tax assessments of more than \$44 million. All are actively involved in the development game.

The second approach—public acquisition of open space—has reached a fiscal dead end. The legislature's Joint Committee on Open Space Lands reported that the cost of purchasing imperiled open space land that cannot effectively be protected through zoning is about \$4 billion at 1970 prices. Given the competing demands on existing state and federal revenue sources, it is highly unlikely that anything near that amount will be allocated to open space acquisition. The Nixon administration is already cutting back the miniscule (approximately \$100 million in 1972) federal Land and Water Conservation Fund, as well as the urban open space program.

The third approach—land-use planning and regulation—is limited by the fact that landowners have considerably more clout with planning departments and zoning boards than do environmentalists. Moreover, a landowner or developer has the advantage of staying power: he may lose a variance appeal two or three times, but sooner or later the zoning board will change and he'll win. The creation earlier this year of regional zoning commissions for the California coastline was hailed as a great environmental victory, but it already appears that a substantial number of commissioners are hostile to the environmental viewpoint.

Limited as the approaches of environmentalists to the land problem are, they are well ahead of the approaches thus far developed by low-income groups. Generally such groups have confined themselves to seeking small parcels of surplus federal land, or filing lawsuits to compel enforcement of decades-old laws



and treaties. Thus, the Pit River Indians have sought the return of land they assert is theirs under a nineteenth-century treaty; landless farmworkers in the Imperial Valley have sued to compel enforcement of the 160-acre limitation and residency requirement of the 1902 Reclamation Act; a coalition of migrant farmworkers is seeking enforcement of the 1864 act granting land to the Southern Pacific railroad on the condition that it sell the land to settlers at no more than \$1.25 per acre. None of these legal efforts has much prospect of success. Nor is there much hope among low-income groups that the land problem can ever be resolved in a manner beneficial to them. The history of government land giveaways—from the railroad grants of the 1860s to the urban renewal write-downs of the 1960s—is too one-sided to offer much encouragement.

Yet it is just within the realm of possibility that low-income groups, by joining with environmentalists, labor, and other progressive forces, could bring about a favorable distribution of land ownership in California. The mechanism for doing this could be a state government trust fund which, for purposes of public salability, might be called the California Land Conservation Fund (CLCF). The CLCF would make land acquisition funds available to public agencies and others for uses consistent with environmental protection and economic justice. It would do so without imposing new levies on most taxpayers. It would thus be a much stronger political device than presently is available for land acquisition and control. With relatively minor modifications, the CLCF model—described below—could also be adopted in other states, or at the federal level.

The operating premise of the CLCF is that land and resource redistribution can be a means to several ends, the principal ones being greater economic opportunity for low-income families, a more decen-

tralized economy in which the role of absentee corporations is diminished while that of locally owned enterprises is increased, preservation of open space, and better care of the land. The CLCF itself would not own or zone land, operate farms, or set up local enterprises. These functions would be filled by other public and private institutions, some of which already exist, many of which still need to be built. The CLCF would be a *politically salable transfer mechanism* that would make *financially possible* the objectives cited above. It would provide only one of the many ingredients (albeit an extremely important one) needed for economic and environmental change: large and steady inputs of money for land purchase. Its uniqueness is that it would do so in a way not dependent upon the diminishing willingness of the legislature (or Congress) to tax the working and middle classes for the benefit of the poor.

Here's how the CLCF would work. Like the highway, social security, and other existing trust funds, the CLCF would be a separate government account into which money would pour from special taxes—in this case, taxes that fall not on the average taxpayer but on the wealthy few who profit most handsomely from land and resources. Revenues from these taxes would be allocated for carefully specified purposes and to particular recipients: half would go to cities, towns, counties, and regional park districts for the purchase of open space land, while the remainder would be granted to low-income cooperatives, community development corporations (CDCs), public utility districts, and nonprofit land trusts for the purchase of productive land. Like the other trust funds, the CLCF, once established (and especially if established by a ballot initiative) would be self-perpetuating and relatively immune to political sabotage.

Funding the CLCF

The principal taxes feeding the CLCF would be a severance tax on the extraction of oil, gas, other minerals, and timber, and a tax on the unearned increment in land value. The severance tax is a well-known tax applied in many mineral-rich states, including Texas, Louisiana, Oklahoma, and Alaska. The unearned increment tax is a kind of capital gains tax applied to land. It has been used in England, South Africa, Australia, Denmark, and other countries, though never in the United States. Its name derives from what John Stuart Mill called the "unearned increment"—the rise in land value brought about by public expenditures (highways, sewers, irrigation projects, etc.) and by economic and population growth. Capturing the unearned increment for private gain is what land speculation is all about. Recapturing it for the public good is the objective of an unearned increment tax.⁵

A state severance tax would fall most heavily on the holders of working interests in oil, natural gas, cement, sand and gravel, other mineral properties, and timber—i.e., the major oil, timber, and land-owning companies. Since these companies benefit from a wide variety of federal and state tax preferences—and since the resources they extract are a gift of nature to all, not to just a privileged few—a severance tax is a highly appropriate levy. From an environmental standpoint, the severance tax is an excellent one because, unlike the *ad valorem* property tax, it encourages conservation rather than depletion of resources. For added effect a differentially high rate might be applied to the severance of resources (such as virgin redwoods) deemed particularly worthy of conservation. A basic rate of 7 percent would yield approximately \$150 million annually.

To some extent a severance tax could be passed on by oil, cement, and timber companies to consumers in the form of higher prices. However, since California companies would be competing against out-of-state producers who would not be affected by the tax, it is doubtful that a significant portion of the tax could be shifted.

The unearned increment tax, if universally applied, would be borne by all owners of land that is appreciating in value. It would be politically wise, however, to exempt land immediately related to most residential property, small farms, and small businesses. The tax would then be borne almost entirely by large landowning corporations and real estate speculators. Its impact would be greatest on large owners of urban and urban fringe land.

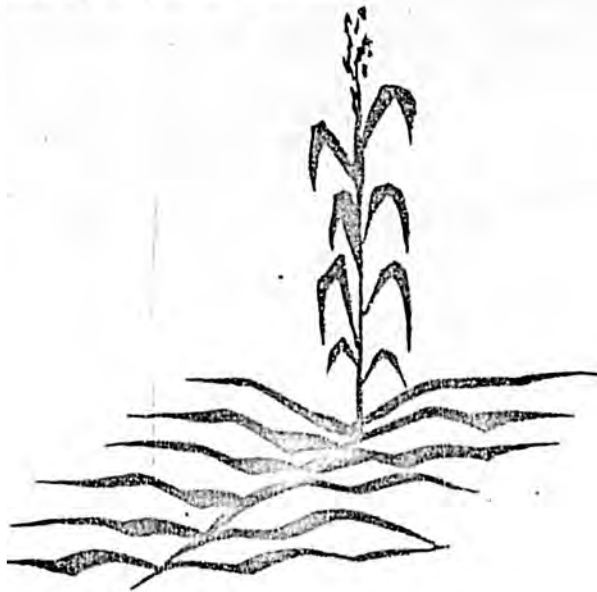
In practice, an unearned increment tax could take a variety of forms. The National Commission on Urban Problems, chaired by former Senator Paul Douglas, described several, ranging from a total shift to site value taxation to a transaction tax on land value increments. I favor tacking on an annual land gains tax to the state income tax. This would be similar to the ordinary capital gains tax except that it would be payable while gains accrue, rather than at time of realization—a necessary difference since one objective of the tax is to induce large absentee landowners to sell.

Collection of an annual land gains tax would be relatively simple. Local assessors, when mailing out their annual property tax bills, would make two extra carbon copies; one would be mailed to the property owner, the other to the State Franchise Tax Board for verification purposes. Each nonexempt property owner would then submit a self-declaratory land gains schedule along with his state income tax return. He would attach to this schedule copies of all appropriate tax bills, much as employers' W-2 forms are attached to the regular income tax form. His tax liability would be calculated in the following fashion: from the total assessed value of his nonexempt California real estate as of a given date in the current year he would subtract the total assessed value of his nonexempt California real estate as of the same date in the preceding year. The difference, representing the total gain in *assessed* value of land and improvements, would be multiplied by four to obtain the total gain in *fair market value* (assessed valuation in California is set by law at 25 percent of fair market value). Then the property owner would subtract the amount expended on capital improvements during the preceding year, and add the depreciation (if any) claimed elsewhere in his return. This would yield the land value increment for the previous year—i.e., the increase in value not attributable to the owner's own improvements—which would then be taxed at an appropriate rate.⁶

Exemptions might be structured as follows: the first \$40,000 worth (\$10,000 in assessed value) of a taxpayer's owner-occupied home, plus the first \$40,000 worth of owner-operated farm or business property, plus the first 1,000 acres of owner-operated farmland covered by the Williamson Act, plus an equivalent value for each rental unit owned, would be excluded in computing the land gain. In addition, the first \$1,000 in gain would be exempt. Californians who owned no property (or only owner-occupied homes worth less than \$40,000) would not even have to file a land gains schedule. Over 95 percent of

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households would thus be spared direct contact with the tax, while the rental exemption would avoid a shifting of its burden onto tenants.



The revenue potential of a land gains tax would be considerable. Consider the following data. Land in California is now worth about \$95 billion, and has been rising in value at about 8 percent per year. That creates an initial tax base of about \$7.5 billion. Approximately half of that would be excluded under the residential, small farm, and small business exemptions. That leaves about \$3.7 billion that could be subject to uniform, progressive, or differential tax rates. A flat 10 percent rate would yield \$370 million annually; a 15 percent rate would yield \$555 million. A differentially higher rate for increases of value in property that had been rezoned for higher use would bring in added revenue.⁷

Besides raising money to buy back the land, an annual land gains tax would, by itself, have several desirable consequences. By diminishing the tax advantages of investing in land, it would encourage the wealthy to put their money elsewhere, and perhaps prompt present large owners of land to begin selling. This would create a downward impact on land prices—downward enough (if the tax rate were reasonable) to slow the natural rate of increase but not to depress land values below their current level. To some extent this downward pressure would diminish the revenues raised by the tax, but it would also make buying land cheaper for CLCF recipients.

Another consequence of a land gains tax would be the creation of jobs and housing. This would occur because the tax would fall only on the rise in land values, not on improvements. Since the supply of

land doesn't diminish, a tax on land gains does not discourage productive investment. In fact, it encourages construction of income-producing improvements on land, especially in the central city and on the urban fringe. Because of the exemption for low and middle-income homes and rental units, the greatest incentive would be to build low and middle-income housing, as opposed to luxury high-rises, shopping centers, and office buildings. If a differentially high rate were applied to land rezoned for higher use, the incentive would be to construct new housing in areas already zoned for it, rather than to sprawl into still-unspoiled areas. If the housing were built by low-income co-ops or CDCs that received land acquisition funds through the CLCF, total costs could be cut by as much as 25 or 30 percent.

Three objections to the land gains tax might be that (1) it does not allow for appreciation attributable to inflation; (2) it taxes unrealized gains; and (3) it constitutes double taxation, since gains would be taxed by the CLCF while accruing, then again by the state and federal governments when realized. These objections are readily answered. (1) No correction for inflation is allowed in taxing inflation-induced increases in wages, dividends, interest, or ordinary capital gains, and there is no reason that landowners should be entitled to special treatment. (2) Concern with taxing unrealized gains might be valid if low and middle-income homeowners and small businesses were not exempt from the tax. Any large landowner who did not have sufficient cash to pay the land gains tax could easily sell a portion of his holdings without hardship. In any case, the ordinary *ad valorem* property tax, which constitutes a heavier burden than would a land gains tax, is worse than an unrealized gains tax because it taxes property values annually even when gains are not accrued. (3) The double tax argument is unconvincing because the "double tax" is no more than a higher rate of taxation on capital gains, a rate that in 1980 would still not equal the rate of taxation on wages (barring significant reform of the federal tax code). Moreover, taxes paid to the CLCF would be deductible from federal income taxes.

Allocating the Land

Assuming the CLCF generated annual revenues of \$500 million to \$700 million (which could be increased further by giving it bonding authority), it could finance the outright purchase of several hundred thousand acres per year. Who would get the money to buy land, and how would allocations be made?

The law establishing the CLCF would contain a formula for allocating funds by purpose, type of recipient, and location. Thus, 50 percent of the revenues might be allocated for open space acquisition. These funds would be divided among state parks, cities, towns, counties, and regional park districts in accordance with population density, quality and quantity of open space available, and other factors. Some funds would be used for preserving wilderness and wildlife refuges, some for recreational areas, some for urban parks and suburban greenbelts (in which land might be leased back to small farmers and co-ops). Grants from the CLCF would cover up to 100 percent of land acquisition costs.

The remaining 50 percent of CLCF revenues would be divided among the following types of recipients:

- Cooperatives of low-income families, for the acquisition of land for agriculture, related enterprises, and housing—for example, farmworkers might wish to buy out a corporate farm and run it cooperatively;
- Community development corporations in rural and urban areas, for the acquisition of land for housing and nonpolluting industries—for example, a chain of CDCs might buy back the west side of the San Joaquin Valley, now almost wholly owned by a handful of absentee corporations;
- Public utility districts, for the acquisition of land, water, or energy resources—for example, a district in the Imperial Valley might acquire geothermal energy sites;
- Nonprofit land trusts, similar to the Jewish National Fund in Israel, for the acquisition of land for lease to family farmers and rural cooperatives, or of common land for Indian tribes and Mexican-American communities (*ejidos*).

As with open space funds, grants to private recipients would cover up to 100 percent of land costs. Recipients would thus be free of debt burden on their land, and could use their land as collateral to borrow money for farm equipment, housing supplies, and other capital outlays. The debt-free gift of land would be in the tradition of the Homestead Act. It would, of course, be a subsidy, but one that would barely touch the subsidies and tax breaks given to railroads, cattle barons, timber companies, energy corporations,

wealthy tax-loss farmers, real estate developers, defense contractors and the like.

Grants by the CLCF to private recipients would be subject to a number of restrictions and conditions. First, carefully drafted language in the law would assure that recipient corporations, cooperatives, and land trusts would either be genuinely nonprofit or owned in major part by persons of low or moderate income who lived and worked in or near the enterprises involved. (In other words, the Irvine Foundation, the Southern Pacific in its various guises, et al., would be ineligible to receive grants.) Second, nonprofit trusts receiving grants would be permitted to lease only to resident family farmers and cooperatives. In no event could a trust lease farmland to an absentee operator, nor could it lease more than 320 acres of irrigated farmland, or 1,000 acres of unirrigated farmland, to the same family, or double that amount to the same cooperative. In leasing farmland the trust would give preference to people with farm work experience and low incomes. Violation of any of these conditions would be cause for revocation of all grants, with grant money repayable (with interest plus a penalty) to the CLCF. Co-ops and CDCs would be subject to similar restrictions. Third, all recipients would be barred from resale of CLCF-funded land for at least 15 years. After that time, the CLCF would retain first option to purchase at a price not greater than its initial grant.

A particular danger stemming from CLCF grants is that valuable pieces of land (e.g., in the Santa Monica Mountains) would rapidly rise in price once it was known that funds were available to buy them. This might result in windfall profits for a few landowners, as has happened in many public park and urban renewal projects. The problem is probably not as acute as it might seem. The land gains tax would recapture at least a portion of any unearned windfalls, while exerting a downward pressure on land prices generally. Where publicly designated open space areas were involved, legislation could be adopted that would fix payment at full market value as of the date of designation. (Language to this effect was contained in the recent Redwood National Park Act.) With regard to land sought for its economic rather than its scenic potential, there would be enough of it on the market to prevent price-gouging by owners of more valuable parcels. Pressure to enforce the 160-acre limitation and residency requirement in federal irrigation areas could help hold down prices in the Central and Imperial valleys.

Prospects and Problems

What would happen if something like the CLCF were adopted today? Would co-ops, CDCs, and nonprofit land trusts be able to handle half a million acres if they received them, free of debt burden, next week or next year? Sadly, I suspect that the answer is no. There is an immediate, desperate need to improve the management capabilities of community and cooperatively owned enterprises, and to increase the readiness of low-income families to participate meaningfully in such undertakings. Government, university, foundation, and other private resources should be poured into this task.

Politically, however, I think we are much further along than many people realize. Voters in California, their sensitivities heightened by smog, sprawl, and environmental activism, approved a statewide coastal zoning initiative last year as well as numerous local open space bond issues. (School bond issues, meanwhile, were generally going down to defeat.) In the legislature, a bill to create an open space trust fund financed by a transaction tax on land value increments has been introduced by Assemblyman John Dunlap and co-sponsored by Speaker Bob Moretti. The California Tomorrow plan, supported by a cross-section of business and political leaders, envisions a substantial amount of public land ownership. In other parts of the country, interest in open space preservation and land reform of a conservative sort has been growing. The Republican county executive of Suffolk County, New York, recently proposed that the county buy up farmland threatened with subdivision and lease it back to the farmers who are using it. A 1972 report financed by Laurance Rockefeller recommended creation of "public corporations" to acquire land for new town development. Robert Wood, former secretary of Housing and Urban Development and now president of the University of Massachusetts, has said that "public ownership and public planning are probably the essential components for a genuine land reform program."

Many if not most of these "land reformers" see public land ownership as beneficial primarily to profit-seeking new town developers, bankers, and well-to-do farmers, rather than low-income groups, as Geoffrey Faux points out.⁶ In my view, public land ownership is not a very promising device for helping poor people, although it's fine for open space preservation. Helping the poor requires that they have more direct access to the land than public ownership *per se* has provided or can provide. The point, however, is that people are ready, or almost ready, to accept the notion of buying back sizable quantities of

land from its present owners. The political task is to make sure that "buy back the land" programs are not used solely for parks and commercial developers, but are also designed to benefit low-income and community groups.

What is necessary over the next few years, it seems to me, is a two-front strategy. On the political front, we must deal with the fact that voters are prepared to spend public money to purchase land for migratory birds, but not yet prepared to do the same for migratory workers. While lamenting and fighting this reality we might as well take advantage of it; there are no other sources of large-scale money for community economic development on the horizon.

I said earlier that a land transfer mechanism such as the CLCF would be politically salable, especially as a ballot initiative. I believe it would be salable because it could be supported by a coalition of low-income minority groups, middle and upper-income people interested in parks and open space, and labor. Its appeal would lie in the fact that it would preserve and create jobs and protect the environment—all without adding a single penny to the sales tax, property tax, or income tax on wages.

The second front involves developing the psychological and managerial capabilities necessary for running new economic structures such as cooperatives, CDCs, and land trusts. This is a much more difficult front than the political one, and a persistent problem over the next few years will be that of timing—how to develop social structures fast enough to keep up with the political gains I believe are possible.

It would be wrong to conclude on too optimistic a note. The forces opposed to genuine land reform are powerful—in Sacramento, in Washington, and in the marketplace. If locally owned economic institutions are to survive, much less to flourish, there must be more than a redistribution of land. There must also be far-reaching changes in federal tax, subsidy, and anti-trust policies. Such changes will be extremely difficult to bring about. It can only be said at this time that the possibilities are there. It is up to us to work strenuously for their attainment.

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FOOTNOTES

1. According to the 1968 *Survey of California Agriculture* (Washington: U.S. Department of Agriculture, 1972), pp. 106 and 114, *Commercial farms* (annual sales of over \$40,000) accounted for 55 percent of the state's farm acreage but used 25 percent of the pesticides.
2. See, for example, *James McWilliams, Factories in the Field* (Boston: Little Brown, 1939); Peter Barnes, "The Great American Land Grab," *New Republic*, June 4, 1971; and the Ralph Nader Task Force Report *Politics of Land* (New York: Pantheon, 1973).
3. California is not unique in its concentrated land ownership; the same pattern prevails in other parts of the country. For example, a 1970 study of 14 coal-producing counties in West Virginia found that the top 25 landowners owned or controlled over 50 percent of the land in the majority of those counties. The 7 largest landowners in the Mountain region were all out-of-state corporations: *Pennsylvania Land* (a subsidiary of the Norfolk and Western railroad), *Consolidation Coal* (a subsidiary of Continental Oil), the *C&O/B&O* railroad, *Georgia-Pacific*, *Eastern Associated Coal*, *Island Creek Coal* (a subsidiary of Occidental Petroleum), and *Bethlehem Steel*. Note that 2 of the 7—*Georgia-Pacific* and *Occidental Petroleum*—are also among the top 10 landowners in California. For a more complete discussion of land ownership patterns nationally, see Peter Barnes and Larry Cavalino, "Who Owns the Land?" *Clear Creek*, December 1972, available as a reprint from the Center for Rural Studies, 345 Franklin Street, San Francisco, California 94102.
4. Davis interviewed by the author. Maltzman quoted by Art Detman, Jr., "Lessons from the National Housing Act," *Saturday Review of the Society*, April 1973. An analysis of the way rising land values inflate the cost of privately developed housing can be found in Edward Kirshner and James Morey, "Controlling a City's Wealth," *Working Papers*, Spring 1973. The two housing experts calculate that if land were owned by residents of a new community rather than by a profit-seeking developer, the cost of new housing could be cut by 23 percent.
5. Additional revenues for the CLCF might be raised through an excise tax on campers, snowmobiles, motorboats, and other recreational equipment, on the theory that purchasers of such equipment are likely to be primary users of recreational land acquired by the CLCF. Similarly, state park entrance fees and concessions rentals could be channeled into the fund. These revenue sources would be considerably more regressive, however, than would the severance and unearned increment taxes.
6. Since not all property in California is reassessed every year, a landowner who had not been reassessed might show a zero or negative increment. If this happened he would not incur a land gain tax liability for that year. In a year or two, when reassessment did occur, he might show a substantial land value increment. He would then have the option of spreading payment out over a three-year period in a manner somewhat analogous to income averaging.
7. The question of what might be an optimum rate schedule would need to be studied carefully. Theoretically, a rate of about 70 percent would be justifiable since, when coupled with state and federal capital gains taxes, a 70 percent tax would fully capture for society what society itself had created. A 22 percent rate would be the equivalent of closing the capital gains loophole

with respect to land. This can be seen by considering the example of a land speculator in the 50 percent tax bracket. He buys a piece of land for \$1,000 and sells it for \$1,200, producing a capital gain of \$200. He pays a federal capital gains tax of \$50 (half of 50 percent of \$200), and a state capital gains tax of about \$5. With a 22 percent land gains tax he would pay an additional \$44 to the CLCF, bringing his total tax to \$99, or nearly 50 percent of his capital gain—the same rate that a wage-earner in his tax bracket would pay.

In determining the optimum rate level in California or any other state, it would be extremely important to evaluate the effect of the tax on land prices. Any tax on land value increments would automatically slow down the increase in land values. If the tax rate were too high, land values might actually decline, thereby wiping out, among other things, the revenue base of the tax. Whatever the rate structure chosen, it would probably be advisable to phase the tax in gradually.

8. See "Reclaiming America" in this issue.

Preface :

Praxis : Research Institute for Social Change was established in 1969 as an institute committed to social change. The close link of research and action is the core of the *Praxis* approach.

The conference on *Workers' Control and Community Control* held in the autumn of 1970 represents in a way a follow-up to an earlier conference on *Industrial Democracy* sponsored jointly by *Praxis* and the *Ontario Woodwork Memorial Foundation* held in the spring of 1970.

In a very real sense, the work of the second conference took place in workshop. Under the general heading of workers' control and community control, participants to the conference met in workshops dealing with specific areas and functions relevant to their workplace and community : Health; The Media; People and Planning; Education; Workers' Control and the Unions; Workers' Control and Collective Bargaining; Community Control and Social Welfare; Cooperatives — these were some of the workshops which met during the weekend of October 30 to November 1, 1970.

Several of the workshop have been instrumental in giving birth to ongoing projects.

We want to express our gratitude to the many organizations and individuals who assisted us in organizing and planning this conference. We wish to thank, in particular, the International Forum Foundation and several trade unions for their generous donations.

Whatever success this conference can claim for itself is due to the active involvement of the participants, the resourceful people and the speakers.

Note : Organizational affiliations of contributors are listed for identification only.

WORKERS' CONTROL IS MORE THAN JUST THAT

by André Gorz

WHEN we speak about workers' control we usually have some very different things in mind. Some of us see workers' control as an end in itself, i.e., as something that can and that must be won within the framework of the capitalist system, so as to improve the situation of the working class. On the other hand, part of us look at workers' control as something that will never be won as long as capitalism prevails, and that must be fought for precisely that reason. According to this second view, which I personally share, workers' control is not an end in itself : it is mainly a means or method, a means which foreshadows more farreaching aims and aspirations, a means whose true significance can be understood only if we place it in a strategic perspective of social and political revolution.

In one word, you probably have deeply diverging views about workers' control. Some may want to fight for it because they are reformists; others may want to fight for it because they are revolutionaries. I think there is no point trying to hide conflict. It is a conflict which must break out openly and be openly discussed. Only by open discussion and confrontation will we be able to find out which is the right method of struggling. Indeed, it must become quite clear that workers' control as seen by reformists is not at all the same thing as workers' control as seen by revolutionaries and that the methods of the reformists and of the revolutionaries are in complete contradiction.

I'm saying these things because I want to be quite frank from the start. I do not intend to deliver a theoretical lecture about strategy. I'll