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ALLOCATING PUBLIC TIMBER BY TRANSFERABLE PURCHASING QUOTAS: A POLICY ANALYSIS

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Federally-owned timber which is made available for conversion to wood products by private firms is sold largely on the stump through the device of an auction sale open to all qualified bidders. Numerous proposals to change this long-standing policy have been put forth in the name of achieving improved industrial efficiency, greater community stability, or more equitable distribution of income between buyer and seller. The proposals cover a wide spectrum of viewpoints. One calls for the federal government to integrate its activities into wood processing, thus transferring this function to public enterprise. At the other extreme, some persons advocate that the federal government should sell its commercial forest land to private firms and get out of the timber production business altogether.

Such proposals are helpful to the search for acceptable responses to the widely recognized economic difficulties of the wood industries in the western states.¹ They give perspective to other policy proposals. But neither of the policy alternatives mentioned is likely to be given serious attention; both are too extreme in their impact on affected individuals and groups. The historical experience of forest policy development in the United States is one of incremental change following long debate.² Thus policy proposals which are relevant are those which embody incremental or marginal changes in existing policies or practices. If there is to be a change in timber sale policy, the new policy will most likely emerge from a set of "incremental policies."³ These are policies which embody relatively small, potentially acceptable shifts in policy position as seen from the viewpoint of those claimants who believe their welfare will be affected by the proposed change.

Walter J. Mead's proposal⁴ to establish a wholesale log market

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1. For an analysis of these difficulties, see Mead, *A Positive Proposal to Strengthen the Lumber Industry*, 40 Land Econ. 142 (1964).

2. S. Dana, *Forest and Range Policy: Its Development in the United States* 349 (1956).

3. A rationalization of this viewpoint is given by Lindblom, *Policy Analysis*, 48 Am. Econ. Rev. 298-312 (1958).

4. Mead, *supra* note 1, at 146. According to Mead, the benefits of the policy are: improved possibilities for establishment of efficient, specialized milling operations; improved utilization of timber resources; reduction of capital required to purchase federal timber; reduction of conflict between Forest Service and users in pricing matters; and others. Disadvantages are: federal government would extend its business into log sell-

on a pilot basis in or near the Willamette National Forest might be viewed as an incremental policy. Under this policy, stumpage sales would be abandoned. Instead, timber would be logged by private firms for delivery at one of two concentration yards near the exits of a national forest. There the logs would be sold by the federal government from relatively uniform log decks at a price that would clear the market.

This article will outline a policy alternative which might also be viewed in a marginalist framework: sale of federal timber under a system of transferable purchasing quotas. Mr. George Craig, Secretary-Manager of the Western Lumber Manufacturers, Inc., first suggested the policy as an option to be considered with other proposals.⁵ Buyers of federal timber have not urged that a quota policy be adopted. But a quota policy may yield various benefits and also has precedents in public resource allocation policy. Thus the quota policy concept appears to merit serious study.

Following is a description of how a transferable purchasing quota policy would operate, along with an analysis of arguments for and against the policy, and a review of existing public policies which resemble the proposed policy in certain key respects. Objectives of the discussion are: to present points of view on the merits of a quota policy as a conceivable option to other policy proposals; and to stimulate analysis and discussion of policies under which public timber resources are transferred to private ownership.

I

A PURCHASING QUOTA POLICY

Under present policy, federal timber which is to be cut and sold is first appraised by the government to determine a minimum bid price. The timber is then advertised for sale and inspection. Bids are invited and received at an announced time and place. The auction is open to any buyer who makes a deposit and meets other specified qualifications. Sale is by either oral or sealed bidding, but oral bidding predominates.⁶ The highest bidder above the minimum bid price is awarded the timber, which is to be cut and removed from government lands within a specified time.

ing; and a wholesale log market would not provide an assured supply of raw material to any operator.

5. Craig, *Possible Trends for Public Timber—Counterbalancing Power or Compound Problems*, Western Lumber Manufacturers, Inc. Mimeo 1002, San Francisco, Calif. (1962).

6. The method of bidding is also at issue. See Mead, *Natural Resource Disposal Policy—Oral Auction Versus Sealed Bids*, 7 *Natural Resources J.* 193 (1967). Under a quota policy either method of bidding or both could be used.

A transferable purchasing quota system, in contrast, would have these features:

1. Federal timber is sold in an auction sale (the general policy now), but only qualified buyers holding purchasing quotas can bid. Salvage and other normally small sales are made outside this quota requirement.

2. Purchasers may buy up to three times the annual quota in any year, but cannot exceed three quotas in any three-year period.

3. Initially, quotas are distributed to all firms which purchased federal timber during the preceeding five years. Quotas given each firm are equivalent to the average annual purchase during the period. Defunct firms are eliminated.

4. Distributed quotas are equivalent to the annual allowable cut of the forest or other appropriate administrative unit. If the allowable cut is decreased, the reduction is prorated among quota holders in proportion to their quotas. Holders are allowed to claim capital losses on recalled quotas.

5. Quota holders can sell their purchasing quotas to either existing operators or to new firms entering the industry.

6. Timber is sold to and priced by the successful high bidder, as now. Current procedures for setting refusal price (appraised price) continue.

Some clarifying comments are in order. First, following future study, certain operating details of the proposed policy may be changed without altering its substantive nature. These details might include changing the maximum purchase in any given year, limiting the quotas which one firm might acquire to a certain proportion of the total, and extending or shortening the base-period used to calculate quota shares. These matters are vitally important to purchasers, but their resolution would leave fundamental policy unchanged. Second, the policy would not exclude any firms which had purchased timber during the past five years from continuing to purchase equivalent average annual amounts. This feature is important from the standpoint of the policy's potential acceptability to the industry. However, a firm wishing to expand federal timber purchases would have to bid additional quotas away from other operators. Third, a quota holder could sell all or part of the quotas which he holds. Fourth and finally, the quota does not constitute a limit on a processor's production or total raw material purchases; it limits only the amount of timber purchased from the federal government.

The immediate aim of a purchasing quota policy differs from Mead's proposal, although a similar objective is sought: improved

industrial performance. A purchasing quota policy would seek to create market conditions favorable to development of large scale, efficient, stable, wood processing units. It would seek to reduce market uncertainties, a barrier to investment in such units dependent on federal timber, by: (a) providing raw material supply security equivalent to the quotas held; and (b) by reducing or eliminating the tendency to bid up stumpage prices or engage in "price wars" under conditions where installed processing capacity exceeds timber supply. The industry has asked for relief from the harsh impact of this kind of market behavior.

II

ARGUMENTS FOR QUOTA POLICY

Under current practice, a firm which processes federal timber has no assurance that it can acquire any given amount of timber over the relatively long period during which plant investments are recovered. Timber sale contracts normally run from one to three years, after which the purchaser must again succeed in being a high bidder. Timber, of course, is not available within a firm's procurement area in unlimited amounts at going prices. If a firm fails to outbid rivals in a particular sale, it may have to close down for want of timber even if it were willing to pay close to the high bid price for another similar tract. True, this prospect may provide powerful incentive to minimize costs and adopt efficient utilization practices in order to attain maximum bidding capability. But, at the same time, uncertainty regarding future timber availability may constitute a barrier to investments in the size of enterprise most capable of exploiting economies and advantages of large scale. According to an industry authority:

Such investments cannot be justified without a sure supply of the raw material, wood. The record makes it completely clear that the sources of such investment capital do not consider public timber sold under short-term contracts as an adequate basis for such investment.⁷

Historically, the lumber industry has experienced marked cyclical fluctuations in demand over the business cycle.⁸ Coupled with relatively easy conditions of entry, this has produced a persistent imbalance between capacity and timber supply. Some firms which have

7. Zivnuska, *National Forest Timber Sales: Alternative Approaches to the Problems of Today and Tomorrow*, 90 *Forest Industries* 40 (1963).

8. Zivnuska, *Business Cycles, Building Cycles, and Commercial Forestry*, Institute of Public Relations, New York (1952); Mead, *The Changing Cyclical Character of Residential Construction and its Impact on Lumber Production and Prices*, Proc. Thirty-Sixth Annual Conference Western Economic Ass'n 32-39 (1960).

exhausted possible timber supplies face the prospect of closure unless they are successful in purchasing public timber. In such circumstances they may bid away fixed costs and profits to avoid closure and to minimize financial losses. Desperation circumstances of this kind explain excessive or cutthroat bidding in some federal timber sales. Thus, market uncertainty in wood procurement is aggravated further.

If entry into auction sales were restricted to quota holders, effective purchasing capacity would be equivalent to the allowable cut of timber. This should reduce or eliminate the impact of excess capacity, both current and future, on the pricing of federal timber. Excess capacity itself however, will not be affected. Each purchaser already dependent to some degree on federal timber would be provided raw material security equivalent to the past five-year average annual purchases at no less than appraised price. Since purchasing quotas can be bought and sold, a mechanism would exist wherein the optimum number, size, and nature of firms in the industry could adjust in response to profit incentives. Efficient producers, i.e., those which are maximizing profits through choice of optimum technology, size of plant, rate of output, and product mix, could bid quotas away from less efficient purchasers and could expand their supply base. Normal incentives to reduce costs and to market high-value products in order to maximize bidding capability would continue to operate in a quota system. With transferable quotas, public timber should tend to be optimally allocated to economically efficient producers. Firms which could accumulate sufficient quotas would be in a position to make long-term investments in plant and marketing organizations of sufficiently large scale to enable effective competition to survive in the highly competitive building materials market. Improvements in timber resource utilization would be achieved through development of plants which could install chipping equipment and integrate into related products like plywood and paper. Technological progress, which has been relatively slow in the lumber industry, would be increased by a greater capability for product research and development—activities where economies of scale are important. Finally, public policy objectives of community development and stability would be better served by efficient, stable, progressive processing units capable of survival in a rapidly changing economy.

As a final argument, in the long-run a quota policy might increase the stumpage prices received by the federal government in comparison to those which would prevail under current policy. This could conceivably result in part from a reduction in the cost of risk

and uncertainty in the minds of purchasers who are wholly or partially dependent on federal timber. Furthermore, "if timber is appraised at a residual value (as now), and if changes in timber sale policy permit the development of integrated utilization facilities by assuring a timber supply, a portion of the increased realization would automatically go to increased stumpage rates."⁹

III

ARGUMENTS AGAINST A QUOTA POLICY

The most important argument against a quota policy is that it would create a barrier to entry into the industry and thus reduce effective competition in the federal timber market. This would decrease incentives for attaining economic efficiency. Quota holders, being guaranteed a certain supply of timber over a period of time, would lose an incentive for maximizing bidding capability. Furthermore, quota holders might be tempted to collude in purchasing federal timber by agreeing beforehand which firm is to be the successful high bidder on a specific offering. Collusive arrangements would also reduce efficiency incentives. Finally, there is no reason to suppose that an efficient firm could always pay a sufficiently high price for quotas to induce an inefficient firm to give up its quotas. The latter would rationally choose to hold its quotas if the present value of anticipated future net revenue were less than the salvage value of the plant (which would be closed if the firm no longer was able to obtain federal timber) plus the market value of the quotas. Eventually, as salvage value decreases, the firm could be induced to sell its quotas. However, a quota system may introduce a time lag in the shift of timber inputs from the inefficient to the efficient producer.

Whether in fact a quota policy would result in more or less economic efficiency is a question which cannot be resolved here. The key assumption behind a quota policy is that in continuing to sell public timber at an auction sale open to all holders of unfilled quotas and in providing for transferable quotas, the market mechanism will continue to offer incentives to lower costs, to establish optimum size plants and rates of output, and to engage in optimum utilization practices. Price competition in finished product markets would, of course, continue to provide incentives to lower costs and maximize conversion values.

Reducing the degree of competition in federal timber markets may be objectionable on general grounds. However, if reducing

9. Letter from George A. Craig to Dennis E. Teeguarden, April 21, 1965.

competition leads to improved economic performance, then a clear social choice exists. The Congress has given legal sanction to non-competitive market devices such as acreage allotments, production quotas, and marketing orders. Thus the question is whether the potential economic costs and antithetical policies associated with reducing competition in federal timber markets and providing raw material security is sufficiently offset by prospective gains in industry performance.

One might argue that the motives for collusion in purchasing federal timber are greater under current practices than under the proposed policy. A firm's uncertainty regarding its ability to acquire needed timber, and the threat of an outsider suddenly successfully bidding on a timber offering considered to be situated in its operating area, provide incentive to seek collusive arrangements in which such uncertainties can be eliminated. A quota system would not eliminate an environment conducive to collusion, but it would reduce the importance of the above two reasons for seeking such an arrangement with rival firms. In any case, actual collusion involving restraint of trade would come under the purview of anti-trust laws and thus could be dealt with under established legal principles and procedures.

One problem stems from the potential windfall which may be realized from the sale of purchasing quotas by their initial holders. In theory, holders could sell their quotas for a price equivalent to the capitalized value of expected extra-normal profits realized from selling products manufactured from federal timber. It is not inevitable that quotas command a positive price, but since initial recipients pay nothing for their quotas, the worst outcome is no gain while any positive price would be a windfall.¹⁰ Subsequent quota holders, of course, could experience losses as well as gains in exchanging quotas, depending on profit expectations among quota buyers and sellers.

10. Theoretically, quota prices would be zero under postulated conditions in the economic model of long-run static competitive equilibrium. There is no incentive for firms to enter or leave the industry, since neither losses nor extra-normal profits are being incurred. Existing firms are just covering all production costs, including a rate of return on invested capital equal to what this capital could earn in alternative employments. Firms in the industry have no incentive to increase output. They are producing the optimum rate of output with optimum-size plants; and the additional costs of an additional unit of output just equal additional revenue from its sale. The value of a quota for purchasing additional timber input would be zero, because additional output would be sold at a loss. No firm would be willing to pay a positive price for a quota. However, in a dynamic economy changing profit opportunities may lead to positive and changing quota prices. Even if industry equilibrium were attained, expectations of increasing demand and product prices would create a demand for quotas by firms wishing to expand output or enter the industry.

Initial quota holders could be placed in the same position as subsequent holders if quotas were distributed by competitive bid. Part of the possible windfall from resale would then be transferred to the government. An objection to this approach is the possible disruption of the current pattern of federal timber allocation which might result. Allowing an initial windfall may be preferable to the alternative of causing hardship on operators whose investment in plant and equipment would be jeopardized if the firm was unsuccessful in acquiring quotas. An alternative approach is to treat quotas as a capital investment and to subject quota exchanges to the usual capital gains income tax treatment. In this way the government can capture some portion of the windfall which arises because of the necessity of possessing a purchasing quota, but at the same time assume some portion of the risk associated with investing in quotas. Initial quota holders, having no original investment in their quotas, might be subject to a 100 percent capital gains tax.

Other arguments against a quota policy are: (a) administrative requirements would increase the cost of the federal timber sale program; (b) it would complicate existing federal timber sale policies further; (c) to the extent that quotas take on marketable values, it would increase the capital required for entry into the industry or for consolidation of existing firms through merger; (d) it would increase the fixed costs of processing and thus decrease industry output flexibility.

IV

POLICY PRECEDENTS FOR A QUOTA SYSTEM

Compared to prevailing practice, a quota system may appear to represent an extreme shift in policy position. Yet congress has established policies for allocating federal timber which resemble a quota system in certain key respects. A review of these policies will provide further perspective on the merits and potential acceptability of a quota policy.

The Management Act of 1937¹¹ established authority for managing the revested Oregon and California railroad grant lands under sustained-yield principles by the Department of Interior, Bureau of Land Management. Under authority of this Act, the Secretary of Interior established twelve marketing areas. Timber within an area was sold only to firms operating primary manufacturing facilities within its boundaries. Thus the marketing area functioned as an allocative device. The Act also authorized cooperative agreements with other federal or state forest administrative agencies, or with

11. 43 U.S.C. §§ 1181 (a)-(f) (1964).

private forest owners and operators, for the coordinated administration of intermingled or adjacent public and private forest lands. Under such agreements, federal timber contained in cooperative sustained yield units would be sold under contract to a single firm at appraised prices rather than to a high bidder in an auction sale. At present, no cooperative agreements have been made for reasons which will be discussed below. Also, marketing units were abandoned in 1957.¹²

The Sustained-Yield Forest Management Act¹³ was aimed at promoting sustained yield management of public and private forest lands. It authorized the Secretary of Agriculture to organize two types of management units: cooperative sustained-yield units and federal sustained-yield units. The former are similar to the cooperative units authorized by the Management Act of 1937. Under long-term contracts, private and public timber lands would be combined into a single management unit, and all federal timber sold to the dependent plant without competitive bidding at appraised prices. Federal sustained-yield units can be set up anywhere in national forests, and do not require cooperating firms to have timberland as a basis for eligibility. A portion of the allowable cut on federal units is usually reserved for open auction sale.

Allocating public timber by transferable purchasing quotas appears to differ slightly from the two policies discussed above. These policies were intended to promote industry efficiency and stability, foster community development and stability, and favor efficient resource use. Both Acts authorized a change from an auction sale open to all comers to a policy of allocating timber to either a particular firm or groups of firms. In assuring dependent firms that they could purchase predetermined amounts of public timber, the policies are identical with the proposal under study, with the exception of the marketing unit arrangement on "O. and C." lands. Both Acts involved a redistribution of "rights" to purchase public timber from one group of potential buyers to another group or to a single buyer. Establishment of a quota policy would involve a similar redistribution of purchasing "rights" although the immediate practical impact of the transfer may be negligible. One difference between this proposal and the Acts discussed is that allocation and pricing of any specific block of timber under the proposed quota policy would be determined in an auction sale as at present.

Opposition was encountered in implementing the Acts of 1937 and

12. By order of Secretary of Interior, April 1, 1957.

13. 16 U.S.C. § 583 (1964).

1944. Influential groups found the expressed policies unacceptable in practice.¹⁴ Sixteen years after enactment of the Sustained-Yield Act, one cooperative and five federal units had been organized. No cooperative units have been established on "O. and C." lands. Initially active in attempting to implement legislative policy, the Forest Service has now adopted a passive attitude toward establishing additional cooperative or federal sustained yield units. Existing units have survived although units on "O. and C." lands have been abandoned.

Reasons why the Acts of 1937 and 1944 were unacceptable to certain groups are important to the present analysis. As is often the case in public policy formation, there was agreement on policy objectives but disagreement on the means of attaining stated goals. Opposition reflected certain consequences which had not been anticipated during hearings preceding passage of the acts. In hearings held to discuss establishment of proposed cooperative, federal, or marketing units, the objectives of promoting stability of forest-based communities and sustained-yield management of private and public forest lands were not challenged.¹⁵ Rather, opposition was directed to the instruments to be used. Mr. Adams reviewed the nature of this opposition.¹⁶ Briefly paraphrasing his findings, the main objections focused on the consequences of redistributing the privileges and benefits of access to federal timber. Purchasers and communities excluded from proposed cooperative or federal units claimed that the units would allow monopoly rather than competi-

14. The Act of 1944 passed the Senate and House without debate and after a single, brief hearing in the House. The bill was presented as a conservation measure. In the hearings, questions concerning the monopsonistic aspects of the allocation policy were satisfied by the argument that there would be adequate safeguards of the public interest. No one spoke against the bill in committee. The primary issues discussed in the hearings preceding passage of the Management Act of 1937 were the needs of affected counties for revenue from the O. and C. lands and the necessity of placing the lands under sustained-yield management. Overshadowed by these two problems, the matter of cooperative agreements and coordinated management of O. and C. lands with lands in other ownerships was discussed only in the most general terms.

15. Enabling legislation provided that local public hearings would be held before cooperative or federal units were established. These hearings proved to be a more effective device for resolving conflicting claims than the congressional hearings and debate. Neither act was challenged by adversely affected groups except at the local level. Two explanations are plausible: first, how the "equilibrium" of affected groups would be disturbed could not be determined until an attempt was made to implement the policy in a specific area; second, some groups lacked access to policy-determining points at the congressional level, but attained access in local hearings.

16. Adams, *Cooperative and Federal Sustained Yield Units: A Problem in Resource Management, 1952*, at 110-127 (unpublished Ph.D. dissertation, University of Michigan).

tion, would discriminate against certain users and communities, and would assure cooperating firms bargain prices.¹⁷

A quota policy would not require establishment of geographical marketing units which would exclude some communities and plants from the "benefits" of processing public timber. In this respect, it does not differ from the policy under which the bulk of federal timber is now sold. Neither will it allocate timber from specific areas to specific firms at appraised prices—a procedure which has been criticized because it constitutes "monopoly" and because bargain prices would ensue due to the lack of competitive bidding. The allocation and pricing of specific blocks of timber would be established in an auction sale as is presently the case. However, only firms with quotas could bid, and then only if their quotas were unfilled.¹⁸ Since all firms which have purchased timber over the previous five-year period will be able to bid, the general market situation will be unaltered.

Distributing quotas on the basis of five-year purchasing experience may not exclude any buyers in some areas; in others, it may exclude some mills, particularly the smaller mills which may not have purchasing experience as a basis for obtaining quotas. If questions regarding "monopoly" and pricing are settled, quota distribution would raise the most severe test of the acceptability of the proposal.

The Small Business Act of 1958¹⁹ also established policies under which public timber is allocated to a specific group of users. This act stated:

It is the declared policy of the Congress that the Government should aid, counsel, assist, and protect, insofar as is possible, the interests of small business concerns in order to preserve free competitive enterprise . . . to ensure that a fair proportion of the total sales of Government property be made to such enterprises. . . .²⁰

The Small Business Administration (SBA) and the U.S. Forest Service developed a program of timber sales specifically for and

17. The proposed cooperative unit at Woodleaf, California, was defeated. Opposing groups were: Oroville Chamber of Commerce, Post of Veterans of Foreign Wars, Disabled American Veterans, Kiwanis Club, Rotary Club, Fellows Club, and American Legion; the City of Oroville; City of Marysville; Marysville District Chamber of Commerce; Yuba County Board of Supervisors; and the Wyandotte Grange at Woodleaf. There is overlapping membership among these groups. The dominating interest group is the city community, in this case a community whose mills would have been excluded from purchasing timber in the federal unit.

18. Situations could arise, of course, where all firms but one have filled their quotas, or else are not interested in bidding. Bidding would then be limited to one firm and price would be the appraised price. Situations like this arise under present timber sale policy. In the absence of collusion, the distribution of sales by number of bidders may not be significantly different than at present.

19. 15 U.S.C. § 631 (1953), *as amended* 15 U.S.C. 631(a) (1961).

20. *Id.*

restricted to firms which qualify as "small." Other firms cannot bid on public timber sales classified as SBA "set-aside" sales. The intent is to help operators obtain a share of public timber roughly in proportion to their capacity by restricting entry into auction sales and by offering small tracts for sale, and to preserve competition by protecting small firms from their rivals.

The SBA program has not been very important, largely due to the lack of demand for "set-aside" sales. A small firm is defined as one with 500 employees or less. This definition excludes very few firms from bidding on "set-aside" sales. At the same time, reducing sale size and terms enhances the ability of loggers as well as mill operators to bid on public timber. As a result, competition faced by small mills is increased. Present opinion regarding the "set-aside" policy is divided; some mills which qualify as small oppose it while others favor it. The Forest Service considers the program a drain on its ability to administer the overall public timber sale program and believes that "set-asides" should be used only when regular procedures fail to allocate timber in an "equitable" manner, i.e., allocations in proportion to total milling capacity.

This third case of departure from general timber sale policy and procedures resembles a purchasing quota system in two respects: first, in the basic principle of restricting access to public timber to a certain class of purchasers; and second, in that pricing and allocation of a specific timber sale is by auction sale open to qualified bidders.

Under long-standing statutes and administrative authority, sale of grazing services on federal lands has been by permits allowing the holder to graze specified numbers of livestock for certain periods on certain areas. Essentially, permits are purchasing quotas which allow the holder to harvest a specified volume of productive services. Permits are awarded for periods up to ten years, thus assuring access to a roughly predetermined amount of grazing use.

Administrative authority to allocate grazing rights through permits or quotas on public domain lands was derived from the Taylor Grazing Act of 1934.²¹ Purposes of this act were:

To stop injury to the public grazing lands by preventing overgrazing and soil deterioration, to provide for their orderly use, improvement, and development, to stabilize the livestock industry dependent upon the public range, and for other purposes.²²

To accomplish these objectives, the Secretary of Interior was authorized to establish grazing districts on public lands which in his

21. 48 Stat. 1269 (1934), 43 U.S.C. §§ 315-315(g), (h)-(m), (n), (o) (1) (1964).

22. 48 Stat. 1269 (1934).

opinion were valuable chiefly for grazing. According to other provisions, preference in allocating grazing rights on what formerly was open range was accorded to owners of land or water who: (1) could also support their livestock on their own land during periods when they were off the grazing district; (2) required the federal lands in conjunction with their own to form an economic ranching unit; and (3) had used public range during the five-year period prior to passage of the act. The purpose of the last provision was to assure that the allocation of permits was approximately consistent with patterns of use which had long been established on previously open range. Permit distribution was worked out by means of mutual agreement between applicants, district advisory boards, and the district range manager who represented the Department. Permits are attached to a specific ranch, not to the owner or to the livestock.

The Acts of 1897²³ and 1950²⁴ granted the Secretary of Agriculture authority to permit, regulate, or prohibit grazing in the national forests. Administrative regulations promulgated under this authority established allocation policies generally similar to those applying to the Taylor grazing districts. Permits are distributed to applicants on the basis of dependency, prior use, and similar criteria, but are attached to lands *or* cattle.

Policies governing the allocation of federal grazing services resemble a transferable purchasing quota system for public timber. Allocation of grazing services is by purchasing quotas which are given on the basis of several measures of dependency and on prior use. Under the present proposal, specific tracts of timber would be priced and allocated by the market, while in the case of grazing, the purchasing quota is tied to a specific area where services are priced administratively. Similarities also exist in the transferability of quotas. Forest Service grazing permits can be transferred to other qualified holders through sale of the ranch or livestock to which the permit is attached. The same policies apply to transfers of grazing district permits except that these are not attached to livestock and thus cannot be transferred along with them. The proposed quota policy specifies that timber purchasing quotas would be transferable; these quotas would not be attached to a specific mill and could be sold separately from the mill.

V

AN INCREMENTAL POLICY?

To summarize, the basic change embodied in a purchasing quota system for allocating federal timber as contrasted with present prac-

23. Sundry Civil Appropriations Act, 30 Stat. 34 (1897).

24. 16 U.S.C. § 580(1) (1964).

tices is to limit participants in auction sales to quota holders. The most important effect from the viewpoint of the buyer is the reduction of uncertainty regarding the ability to purchase federal timber. The main objective is to improve the economic efficiency of wood-processing industries.

Is a purchasing quota system better than the present system? No policy analyst is sufficiently omniscient to answer the question. But from the foregoing policy "data," it is concluded that allocating public timber by use of transferable purchasing quotas is an *incremental policy* that should receive serious study along with other options. In both objectives and means, a purchasing quota system resembles existing statutory and administrative policies which were reviewed above. More importantly, a quota system answers objections to these earlier policies. As such, a purchasing quota system apparently involves less of a shift in policy position, and thus may be more acceptable than its predecessors.

This article is intended to stimulate debate on the impact of federal timber sale policy on the long-run economic performance of the wood-using industries. Federal policy cannot be neutral in its effect on industry performance. Thus there is a continuing need to give serious study to appropriate means and goals for federal timber resource allocation.²⁵

25. While work on this paper was in progress, a comprehensive review of alternative timber sale policies and their welfare consequences was initiated by W. R. Bentley. The reader may wish to see his recently published report: *Forest Service Timber Sales: a Preliminary Evaluation of Policy Alternatives*, 44 Land Econ. 205 (1968).