BY THE COMPTROLLER GENERAL

Report To The Congress

OF THE UNITED STATES

New Means Of Analysis Required For Policy Decisions Affecting Private Forestry Sector

Demand for U.S. timber is expected to increase dramatically over the next several decades. Even greater increases, proportionately, are forecast for timber prices, imposing a great strain on the U.S. economy.

The timber capital gains tax provision has been described as the most important Federal effort to increase timber supplies. Capital gains resulted in tax benefits to timber growers totaling $1.6 billion for fiscal years 1976-80. However, due to statutory provisions and limitations in existing data and analytical tools, significant tax expenditures are being made with no real understanding as to their effect in increasing timber supplies.

GAO recommends that the Forest Service improve its ability to analyze the impact of Federal programs on timber production on privately owned lands.

EMD-81-18

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COMPTROLLER GENERAL OF THE UNITED STATES
WASHINGTON D.C. 20548

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To the President of the Senate and the
Speaker of the House of Representatives

This report discusses the possible shortages of future timber supplies, the lack of adequate reforestation, and the related increases in timber prices and their effect on the Nation's economic welfare. It also discusses problems in determining the effectiveness of capital gains tax treatment in increasing reforestation and improving timber management.

Copies of this report are being sent to the Secretaries of Agriculture and of the Treasury, and the Director of the Office of Mangement and Budget.

Comptroller General
of the United States

COMPTROLLER GENERAL'S
REPORT TO THE CONGRESS

NEW MEANS OF ANALYSIS REQUIRED FOR POLICY DECISIONS AFFECTING PRIVATE FORESTRY SECTOR

D I G E S T

INTRODUCTION

The Forest Service forecasts that future timber demand will increase dramatically over the next several decades. Projected demand for 2030 is more than double the 1977 level of timber consumption. Even greater increases, proportionately, are forecast for timber prices. Because of the wide use of timber, its price escalation affects the prices of a wide variety of nonindustrial products, as well as new housing. (See p. 1.)

In this report, GAO examines both the relationship of Federal capital gains tax treatment to overall timber production and reforestation by the private sector, and the production potential of nonindustrial private forest lands. Its overall conclusion: better data and analytical tools are needed to judge the impact of Federal programs and policies on increasing timber supplies. (See pp. 6 & 7.)

CAPITAL GAINS TAXATION OF TIMBER INCOME

The forest industry has long contended that the timber capital gains tax provision enacted in 1944 has encouraged reforestation of the Nation's private forests. However, the tax law does not require that capital gains benefits be applied to reforesting or improving management techniques. Tax benefits are based on income from timber cut rather than on what the taxpayer spends for site establishment, reforestation, and timber management. (See p. 9.)

EMD-81-18

Even though the forest industry claims that capital gains tax treatment has brought both increased planting and higher productivity on private forest lands, other factors could have led to substantial increases in forest planting and forest management in the absence of the tax revision. Among those factors were population increase, movement to the suburbs and associated increased demand for new housing, reduced inventories of old-growth timber, and the resulting sharp increases in the price of timber stumpage. (See pp. 10 & 11.)

None of the many sources GAO contacted could provide firm evidence to support generally claimed values for conservation and reforestation from capital gains tax treatment.

Captial gains tax treatment of timber income is considered a tax expenditure. Based on the Department of the Treasury's method of calculating this tax expenditure, the true cost of capital gains tax treatment of timber income is unknown. The estimates which have been prepared for fiscal years 1976-1980 indicate that 76 percent of the benefits ($1.2 billion) accrue to industrial firms and 24 percent ($.4 billion) accrue to individual nonindustrial land owners. However, the latter group supplies the largest percentage of timber supply. The lack of alignment between actual timber production and distribution of capital gains benefits suggests that the Congress needs much better information to evaluate the effectiveness of existing tax policy. (See pp. 11 & 12.)

Another concern with present operation of timber capital gains policy is that those cutting and selling timber from public forests may well be realizing capital gains benefits without contributing to long-term investments in the land or replacement stands. Significant tax expenditures are being made in conjunction with Federal timber sales with no real understanding as to their distribution or effect. (See pp. 14 & 15.)

Overall, there appears to be no way of resolving the contentious issues associated with timber income capital gains treatment and the future timber supply-price situation unless significantly different analytical techniques are adopted, specifically including a private sector forestry policy "model" or analytical framework. (See pp. 16-20.)

PRODUCTION POTENTIAL OF NONINDUSTRIAL PRIVATE LANDS

Numerous reports and studies have concluded that nonindustrial privately-owned forest lands offer the greatest potential for increasing the Nation's timber supply. Although many forestry assistance programs have been initiated, there is no adequate estimate of potential timber production on privately-owned land. (See p. 21.)

Although there are 278 million acres of nonindustrial forest lands, it is likely that only a fraction of that acreage could be managed for increased timber production. Such factors as the mix of motivations for owning timber land, marketing constraints, and a range of economic and financial problems small landowners face make it difficult to make realistic projections of timber production on nonindustrial lands. Future assessments should take into account criteria such as (1) identification of economically and biologically productive acreage, (2) production of timber within a reasonable distance of existing or potential markets, and (3) whether the owner's motives and objectives support increased timber production. (See pp. 21-24.)

Many studies conclude that the primary need of production-oriented, nonindustrial forest land owners is "up-front" assistance for site establishment and reforestation expenses. In response, the Congress has already authorized the Forestry Incentives Program and has considered additional forms of assistance. (See p. 29.)

A detailed comparative assessment of these alternatives--expensing of site preparation costs, Federal loans, or expansion of direct financial assistance--should be compiled as rapidly as possible. The assessment should also make clear prospective production implications of various levels of assistance so that Congress can judge them in relation to future timber price problems. Many past and existing Federal, State, and private sector assistance efforts have been devoted to encouraging timber growth on privately-owned land. Generally these programs have not been effective, in large part due to a multiplicity of administering agencies, ill-defined objectives, and poor coordination. (See pp. 31-34.)

Better cooperation and coordination is needed among the Federal, State, and private organizations that provide forestry assistance. A necessary precondition to more effective program coordination is evaluating nonindustrial acreage to identify those lands that truly have important biological and economic opportunities. Forestry assistance programs should then be firmly focused on such lands and their cost-effectiveness measured in light of a much more disciplined focus. (See p. 34.)

RECOMMENDATION TO THE SECRETARY OF AGRICULTURE

The Secretary of Agriculture should take the initiative through the Forest Service to develop a new analytical framework and expand its analytical capability to deal with tax policy, financial and technical assistance, and related considerations as they affect the performance of the timber industry in the private sector.

The Forest Service should call on the expertise of the Department of the Treasury in analyzing tax policy options and should elicit active collaboration of the forestry industry.

The Forest Service should refine its data and analysis on the production potential of nonindustrial, privately-owned forest lands with the goal of (1) identifying nonindustrial private forestlands with true potential for increasing future timber supplies, and (2) analyzing comparative costs and benefits of alternative forms of tax incentives of financial assistance for private, nonindustrial landowners. (See pp. 37 & 38.)

MATTERS FOR CONSIDERATION BY THE CONGRESS

GAO believes that the Congress should support the expanded analytical capabilities called for in its recommendations to the Secretary of Agriculture. A congressional expression of support would provide an incentive for maximum and efficient collaboration between the public and private sectors.

The analysis called for in this report would help the Congress in future policy deliberations affecting the private forestry sector, and in future discussions on appropriations for increasing production from private nonindustrial forest lands. (See p. 38.)

AGENCY COMMENTS

GAO provided a draft of this report to the Forest Service and the Department of the Treasury. Both agencies support GAO's basic conclusions regarding the need for improved analytical techniques for assessing financial and tax assistance to the private forestry sector. (See p. 38.)

Although it agrees that the analytical capability should be developed, the Forest Service suggests that "an unbiased third party group" be assigned the responsibility. GAO believes that the agency with primary programmatic jurisdiction should be responsible for assessing tax/investment options

affecting its area of responsibility. With the recent enactment of legislation authorizing new tax incentives to private landowners, it is more important than ever that the Forest Service develop the capability to assess reforestation investment alternatives. (See p. 39.)

The Forest Service states that "a number of years" would be required to overcome existing data deficiencies, and that it "has a very limited number of personnel familiar with the tax field." GAO recognizes that considerable effort will have to be devoted to refining and expanding the pertinent data base. GAO disagrees, however, that useful analyses must be deferred for some indefinite period. The Forest Service is already supporting modeling/analytical efforts directly relevant to the issues at hand. As for the manpower shortages, whatever additional resources the Forest Service needs to develop this analytical capability must be requested through its annual appropriations process. (See p. 39.)

The Forest Service suggests that the issues addressed in this report be placed in the context of its overall renewable resources planning effort. GAO believes the two efforts should be kept separate. Although both have impacts on future national timber supplies, the renewable resources planning is primarily oriented to the public lands and to resource planning. The focus on incentives to influence private actions will remain sharper and their impacts will be easier to analyze if kept separate. (See pp. 39 & 40.)

The Department of the Treasury states that more emphasis should be given to the relation between the policy model and estimation of potential forest acreage. GAO does not support any particular model or method, but rather the development of an

analytical capability to assess tax and other timber production incentives. (See p. 40.)

Treasury further states that "In principle, it makes no difference whether a subsidy to forestation is paid when the trees are planted, or when they are cut." GAO believes this is true only under certain theoretical conditions. The key one is that the subsidy must be spent on the new stand of trees in both cases. A subsidy that is paid when the trees are harvested may or may not be used to establish a subsequent stand. A subsidy for establishing or planting a stand would be received only if the regeneration of the timber has taken place. If the subsidized forestation is a reasonable investment, yet individuals would prefer to spend the money or to invest it elsewhere, then the timing of the incentive can affect the number of acres regenerated. This must be borne in mind when assessing Treasury's views on the potential merits and demerits of "plow-back" requirements for timber investment subsidies. (See p. 40.)

Contents

CHAPTER 1

FORESTS: AMERICA'S RENEWABLE RESOURCE

INTRODUCTION

Concern about the national timber future has been the focus of a series of Forest Service studies. These studies are in response to Congress' directive to assess the Nation's current and future timber supply. For example, the Congress passed the Forest and Rangeland Renewable Resources Planning Act of 1974, which, among other things, directs the Secretary of Agriculture to prepare periodically a Renewable Resource Assessment that contains the facts and analyses to develop and guide public and private forest and rangeland policies and programs.

The most recent of these studies, "An Assessment of the Forest and Range Land Situation in the United States" (1980), indicates that consumption of timber products in terms of roundwood volume could double by the year 2030. The study states that timber consumption has increased from about 12.0 billion cubic feet in the early 1960s to 13.7 billion cubic feet in 1977. Projected demand reaches 22.7 billion cubic feet in 2000 and 28.3 billion cubic feet in 2030, more than twice the consumption in 1977. The Forest Service projects a timber shortage of 15.8 billion board feet by 1990 and 17.2 billion board feet by 2030 for softwood sawtimber, assuming that the price trends used in making the projections continue through 2030.

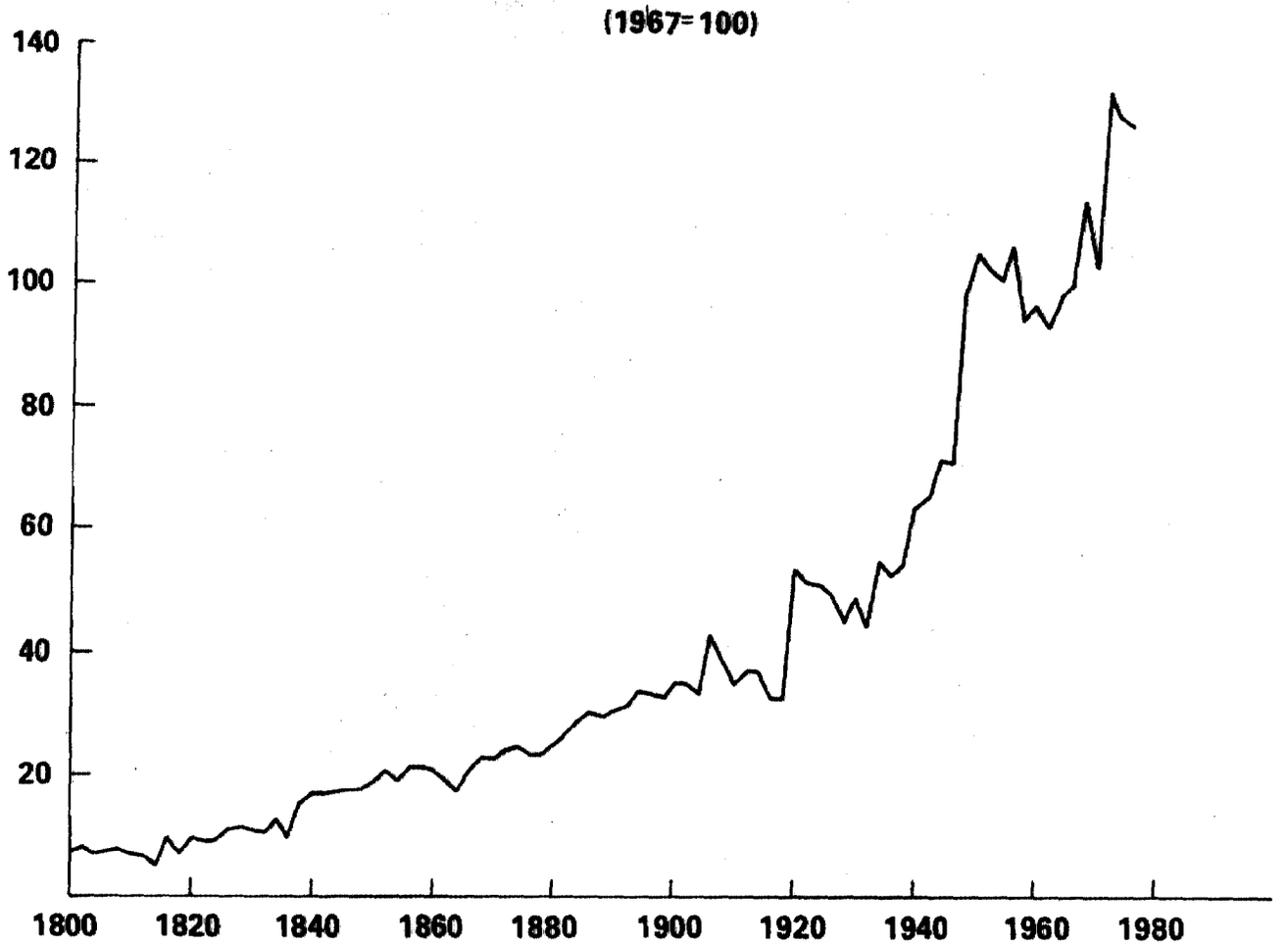
Timber Price Escalation

Figure 1 shows the relative wholesale price indexes for all lumber from 1800 through 1976. It shows an escalating price index trend ranging from 6.4 in 1800 to 127.4 in 1976. Prices have escalated at a much faster rate since 1900, especially since 1946 when the price index rose from about 71 to 127.4 in 1976.

Although there has been some fluctuation in relative lumber prices in the past decade, expected timber demand-supply balances suggest the likelihood of future and sustained increases in the prices of both softwood and hardwood lumber relative to the prices of all commodities and most competing materials.

FIGURE 1

RELATIVE 1/ WHOLESALE PRICE INDEXES FOR ALL LUMBER 1800-1976 (1967=100)



1/ Derived by dividing the "Actual" price index by the "All commodities" price index.

SOURCE: 1800-1914 Cornell University Agricultural Experiment Station; 1915-76 U.S. Department of Labor, Bureau of Statistics.

Figure 2 shows the relative wholesale price index of softwood (Douglas fir and southern pine) and hardwood relative to other construction materials for the period 1968 to 1979. These wholesale price increases are consistent with the historical trend shown in Figure 1. Relative increases have been particularly rapid in the 1970s and have increased at a rate faster than for other construction materials.

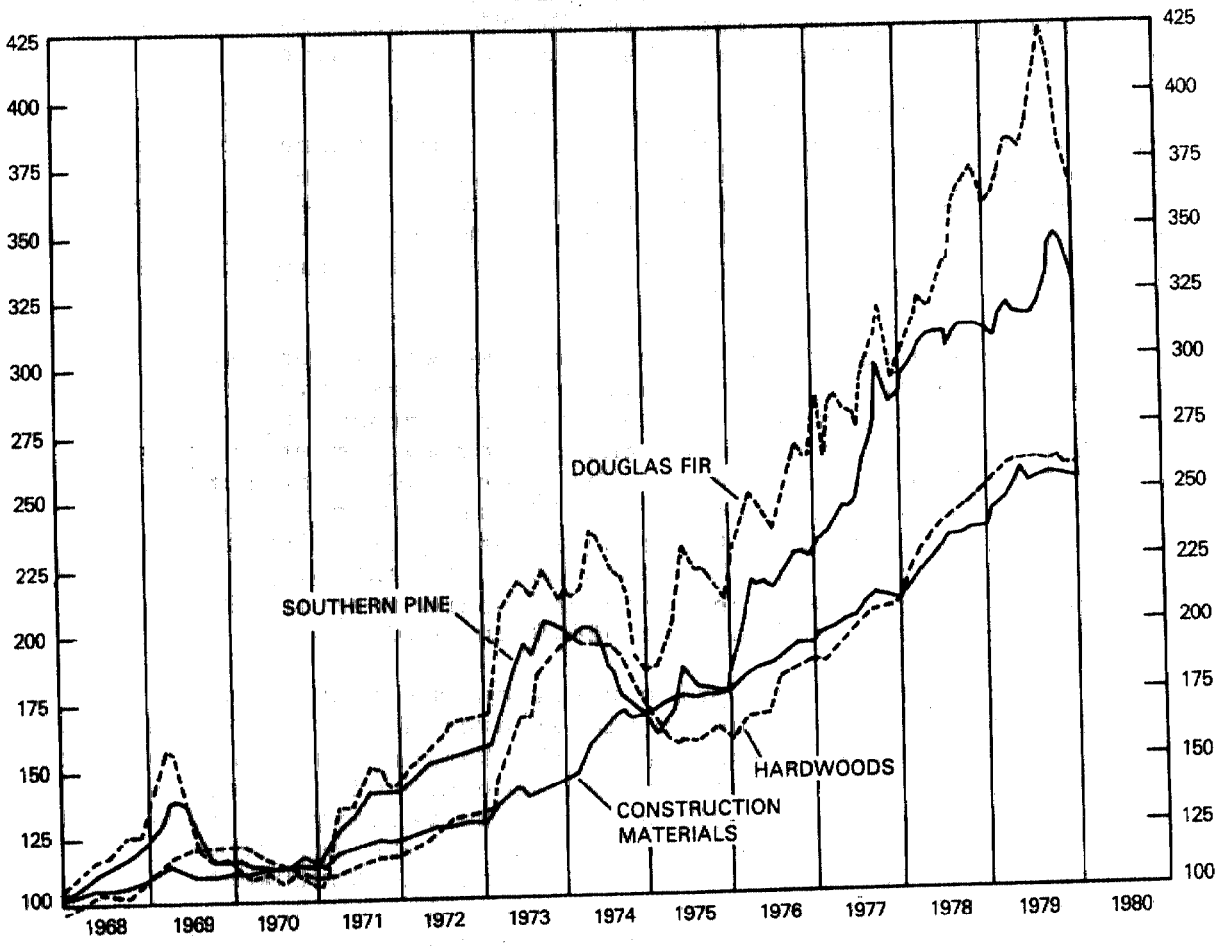
Figure 3 shows the average stumpage prices 1/ for Douglas fir and southern pine sawtimber sold from national forests during the period 1970-1979. The relative price of Douglas fir increased 303 percent from $38 to $153.10 per thousand board feet during this period, while the southern pine stumpage price rose 75 percent from $39.90 to $69.80 during the same period.

According to Forest Service estimates, if prices are allowed to bring about an equilibrium between timber demand and supplies, the prices would have to increase by very large amounts in order to overcome the projected timber shortage of 17.2 billion board feet by the year 2030. The Forest Service study shows that the index of equilibrium prices of softwood stumpage necessary to bring about equilibrium in timber demand and supplies in the Southeast, for example, would have to increase from 138.9 per thousand board feet in 1976 to 280.0 in the year 2000 and to 526.8 in 2030.

To the extent that price rises can be moderated by increasing the quantities of timber available for current and future generations of Americans, the Nation's economic welfare can be increased. Because of the wide use of timber, its price escalation affects the prices of a wide variety of industrial products, as well as new housing. In an earlier report, "Projected Timber Scarcities in the Pacific Northwest: A Critique of 11 Studies" (EMD-79-5, Dec. 12, 1978), we discussed reasons why the Forest Service's methodology for estimating timber supply and demand may result in an overstatement of future supply and price problems. Nevertheless, given the long history of increasing timber prices and the projected continuation of timber price escalation, the Government ought to give serious attention to means for trying to temper the price implications inherent in present demand forecasts. One option is through promoting increased timber supplies.

1/Stumpage price is the value of a standing tree in the woods, the value of the resource before processing.

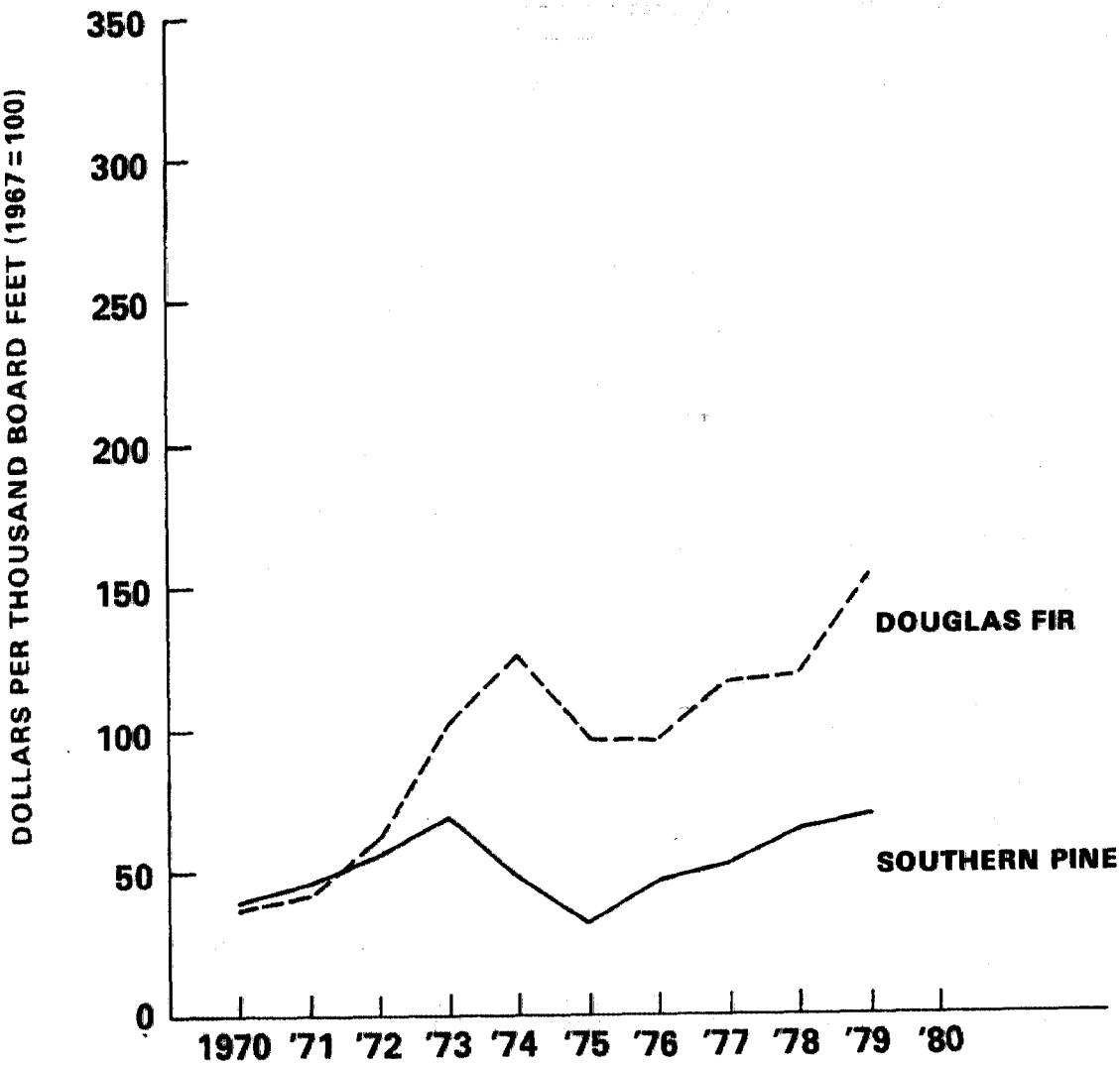
Figure 2
WHOLESALE LUMBER PRICES
1968-1979
(INDEX 1967 = 100)



SOURCE: Bureau of Labor Statistics,
Department of Labor

FIGURE 3

AVERAGE STUMPAGE PRICES FOR SAWTIMBER FROM NATIONAL FORESTS 1970-1979



SOURCE: U.S. DEPARTMENT OF AGRICULTURE, FOREST SERVICE

Sources Of Timber Supply

There are three sources of commercial timber supply--public, industry, and nonindustrial private forest lands. Of the total 737 million acres of forests in the Nation, about 482 million acres, or about 66 percent, are classified as "commercial land," that is, each acre is capable of producing at least 20 cubic feet of wood each year and the acreage is not reserved for other uses such as parks and wilderness areas. Ownership of commercial timberland is as follows:

OWNERSHIP OF COMMERCIAL TIMBERLAND
JANUARY 1977

Owner	Million acres	Percentage
Public	135.7	28
Industrial	68.7	14
Nonindustrial	277.9	58
	482.3	100

Source: U.S. Forest Service.

Timber is a renewable resource but one which requires a long wait between investment and maturity. Thus, while it is profitable to harvest current forests, there may be reluctance to invest in the production of future supplies. To deal with this problem, the Congress has established long-term objectives for the national forests, stipulated in the National Forest Management Act of 1976. It also has provided tax incentives and other forms of assistance to encourage private timber production.

OBJECTIVES, SCOPE AND METHODOLOGY

We have issued a number of reports suggesting ways and means of increasing timber supply from the public forests. 1/ This report addresses that segment of U.S. timber supply in only a limited way. 2/ It concentrates on site establishment

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1/Two recent examples are "Need to Concentrate Intensive Timber Management on High Productive Lands" (CED-78-105, May 11, 1978)," and "Timber Harvest Levels for National Forests--How Good Are They?" (CED-78-15, Jan. 24, 1978).

2/A recent Congressional Budget Office report, "Forest Service Timber Sales: Their Effect On Wood Product Prices" (May 1980), evaluates the effects of several alternative levels of timber sales from the national forests.

(clearing and preparing land for planting) and reforestation efforts made by the timber industry and the nonindustrial, private forest owners and, in particular, the ways in which existing or modified tax policy incentives and/or other financial assistance might encourage private forest owners to regenerate timber on their lands to better meet the future timber needs of the Nation at reasonable prices.

We made this review at Forest Service Headquarters in Washington, D.C.; and the States of Alabama, Georgia, South Carolina, Virginia, Idaho, Oregon, and Washington. These States were selected because they had large timber industries, including nonindustrial private forest lands, and they permitted us to compare regional differences (e.g., Northwest vs. Southeast). Brief visits were also made to several other States to interview officials of selected industries and Government agencies that we felt could offer insights into the problems and potential solutions confronting the U.S. timber industry.

We discussed the effect of timber tax treatment with officials of (1) major forest product and paper industries, (2) Federal and State tax agencies, (3) Federal and State forestry agencies, and (4) Departments of Forestry at several universities and colleges. We also talked with several private forest owners and forestry consultants about the effects of taxes and tax incentives.

We reviewed (1) applicable tax laws and regulations, (2) books and reports on forestry taxes and forestry supply and demand prepared by individuals and groups from the Federal and State Governments and the private sector, (3) articles published by forestry associations, accounting and tax journals, and (4) reports and summaries covering conferences and symposia on forest taxation and other aspects of forest tax policy, economics, and management.

In chapter 2 of this report we examine the relation of timber capital gains tax policy to site establishment, reforestation, and improved forestry management practices of industrial forest owners.

In chapter 3 we examine a long standing contention that nonindustrial, privately owned forests, because of the sheer acreage involved, have the greatest potential for increasing timber resources. We further consider whether capital gains provides an effective tax incentive for nonindustrial forest owners to reforest and better manage their timberlands. We examine also the effectiveness and coordination of Federal, State, and private forestry programs.

Chapter 4 contains our conclusions and recommendations.

CHAPTER 2

THE RELATIONSHIP OF CAPITAL GAINS TAX POLICY TO NATIONAL TIMBER PRODUCTION AND REFORESTATION

This chapter examines the capital gains tax treatment of timber income, argued by many as the principal Federal incentive to site establishment, reforestation, and improved forestry management practices on privately owned forest lands. It explains the serious contentions regarding the effectiveness of the tax treatment and its costs, and points out some major concerns associated with it. The chapter concludes with considerations for improving analysis of timber tax policy.

TAX POLICY THAT ENCOURAGED LIQUIDATION OF TIMBER RATHER THAN LONG-TERM MANAGEMENT

Standing timber, according to "The Timber Tax Journal" (1978), is recognized under the real property laws of all States, as well as the Federal income tax law, as a capital asset. Therefore, when a timber owner makes an outright sale of standing timber in a "lump-sum" transaction, he is disposing of a capital asset providing it has not been held for sale to customers in the ordinary course of business. Any profit realized is treated as a gain from the sale of a capital asset. No special language dealing specifically with timber has been included in the law to accord the capital gain or loss treatment to "outright disposal for a lump sum." According to a Forest Service official, it rests on interpretation/application of the tax law.

Under the tax law enacted in 1921, owners who held timber for the period required by the Internal Revenue Code and later sold their timber outright in a lump-sum transaction as a capital asset could have their profits taxed at the lower capital gains rate rather than the ordinary tax rate.

It was contended that the tax law prior to 1944 created not only an equity problem but provided no financial incentive for timber owners to manage their forests for continuous timber production. For example, the owner who cut his timber, selecting and selling the logs or pulpwood, was taxed at a higher rate than if he sold the timber outright and let the purchaser come on his land to do the cutting. Similarly, the sawmill operator who owned standing timber and cut it for use in his sawmill had to pay the higher ordinary income tax rates on the increase in value. As a practical matter, the sawmill operator might have been better off had

he sold his timber outright, as a capital asset, and then bought timber from another landowner as needed in his sawmill.

Consequently, there was little financial incentive for timber owners to hold and manage their timberlands for continuous timber production because they were subject to strong economic reasons to liquidate their timber holdings. The privately owned, commercial forest areas were generally characterized by forest devastation, and it was claimed that tax policy encouraged liquidation of timber rather than long-term management.

REVISION OF CAPITAL GAINS TAX POLICY

By the 1940s, the Congress was being urged to revise tax policy to encourage sound forest management practices and to stimulate the growth of timber as a primary renewable resource. In response, the Congress enacted as part of the Revenue Act of 1943, a provision that extended capital gains tax treatment to virtually all timber income. Section 117(k), which is substantially the same as section 631 in the 1954 Internal Revenue Code, placed owners who cut their own timber or who disposed of it under a long-term cutting contract, on the same tax basis as an owner who sold standing timber outright. Furthermore, no distinction was made between timber that was cut for sale or for use in an owner's business.

The objectives in passing section 117(k) have been described as follows: (1) to stimulate the development of forest resources by giving taxpayers an incentive to improve the value of their timber properties, (2) to correct the inequity of taxing income developed over many years as ordinary income in the year realized, and (3) to allow the same tax treatment to timber owners who cut their own timber or disposed of it by a cutting agreement. The recorded debate in the Senate shows that reforestation was an important consideration.

CONTENTIONS REGARDING CAPITAL GAINS TAX ON TIMBER PRODUCTION

On several occasions, the Congress has reviewed capital gains tax treatment of timber income. Both individuals and certain corporations have testified in support of capital gains as a reforestation incentive.

This viewpoint has been consistently presented by the Forest Industries Committee on Timber Valuation and Taxation, a major representative of the private timber sector. The Committee's testimony has repeatedly stressed its perception

that the most dramatic growth development in the history of America's private forestry followed enactment of the timber capital gains provisions. This private group claims that the capital gains tax treatment quickly brought both increased plantings and higher productivity on private forest lands.

The Forest Industries Committee also claims that prior to 1944 the growing stock in the United States forests declined at an average rate of seven billion cubic feet per year. Since that time, the volume of growing wood fiber has increased to where it is approximately 175 billion cubic feet more than in 1944. The Committee claims this dramatic difference was made possible in large measure by the capital gains incentive for increased investments in reforestation and timber stand improvement.

The Forest Industries Committee has continually opposed any proposals to alter section 631 with such arguments as:

--Capital gains was the principal reason for the dramatic advances made by the timber industry in the areas of reforestation, forest management, and timber investment in the two decades following 1944.

--A change would drastically affect the industry's ability to compete for investment dollars because of the low rate of return on investments in timberland.

--It would reduce the supply of lumber at a time when the demand is increasing at an unprecedented rate.

--It would place the Nation's timber companies at a disadvantage in their competition with foreign companies.

However, there are some who disagree with these contentions. A 1972 special analysis, "The Federal Tax Subsidy of the Timber Industry," which was submitted by the Treasury to the Joint Economic Committee and included in that Committee's report, stated that capital gains treatment involved a subsidy to the industry and that

> "There is no compelling evidence that the timber tax subsidy is effective in increasing the supplies of timber or in encouraging conservation * * *. While capital gains treatment allows timber owners to practice sustained yield forestry, there is no direct incentive to do so. If timber owners choose instead to cut their land intensely, they still qualify for capital gains treatment."

The report noted that too little was actually known about the impact of the timber tax subsidy. Even though supporters of the tax subsidy have pointed to the significant increases since 1943 in forest planting and forest management, there clearly were a number of factors operating which could also have led to substantial increases in forest planting and forest management in the absence of the tax revision. Among those factors noted in the report were population movement to the suburbs and the associated increased demand for new housing, the reduction in inventories associated with decline of old-growth timber, and the resulting sharp increases in the price of timber stumpage.

The problems stemming from lack of "compelling evidence" persist to this time. We found no publicly available, definitive evidence that capital gains tax treatment has augmented timber supplies. Tax benefits are based on income from timber that the taxpayer cuts rather than on what the taxpayer spends for reforestation and timber management. The tax law still does not require that timber capital gains benefits be applied to reforesting or improved forest management techniques. Given statutory provisions, existing data and analytical tools, there is no empirical basis for judging the overall reforestation efficiency of capital gains tax treatment.

COST OF CAPITAL GAINS TAX TREATMENT

The capital gains benefits accorded timber owners are considered a tax expenditure by the Department of the Treasury. Tax expenditures are defined as "revenue losses attributable to provisions of the Federal tax laws which allow a special exclusion, exemption or deduction from gross income or which provide a special credit, a preferential rate of tax, or a deferral of tax liability."

The amount of revenue loss since enactment of the 1943 Revenue Act is unknown. However, the Congressional Budget Act of 1974 requires that a listing of tax expenditures be included in the U.S. Budget. Accordingly, the estimated revenue loss for capital gains tax treatment of timber income has been included in the Special Analysis of the U.S. Budget for the past 5 fiscal years.

Figure 4 shows estimates of tax expenditures for capital gains tax treatment of timber income for individuals and corporations. Totals for 5 fiscal years are $1.2 billion (76 percent) for corporations, and $.4 billion (24 percent) for individuals.

These estimates of revenue loss are computed by the Department of the Treasury using information from the Statistics

of Income for Corporations. However, these amounts are only approximations of the revenue loss because timber income taxed at the capital gains rate is not specifically identified in the Statistics of Income.

To estimate the tax expenditures accruing to corporate benefit, the Department of the Treasury uses the amount of net capital gains from two Standard Industry Codes, comprising the lumber and wood products and the paper and allied products industry groups. However, not all timber income is reported in these two industrial groups. Other integrated firms may have timber income included in their capital gains that would be reported in another industry group because lumber or paper is not their major product. Also, capital gains for the lumber and paper industries may include gains other than those from timber income. To adjust for this other gain, the Department of the Treasury excludes 10 percent of capital gains benefit from its computations.

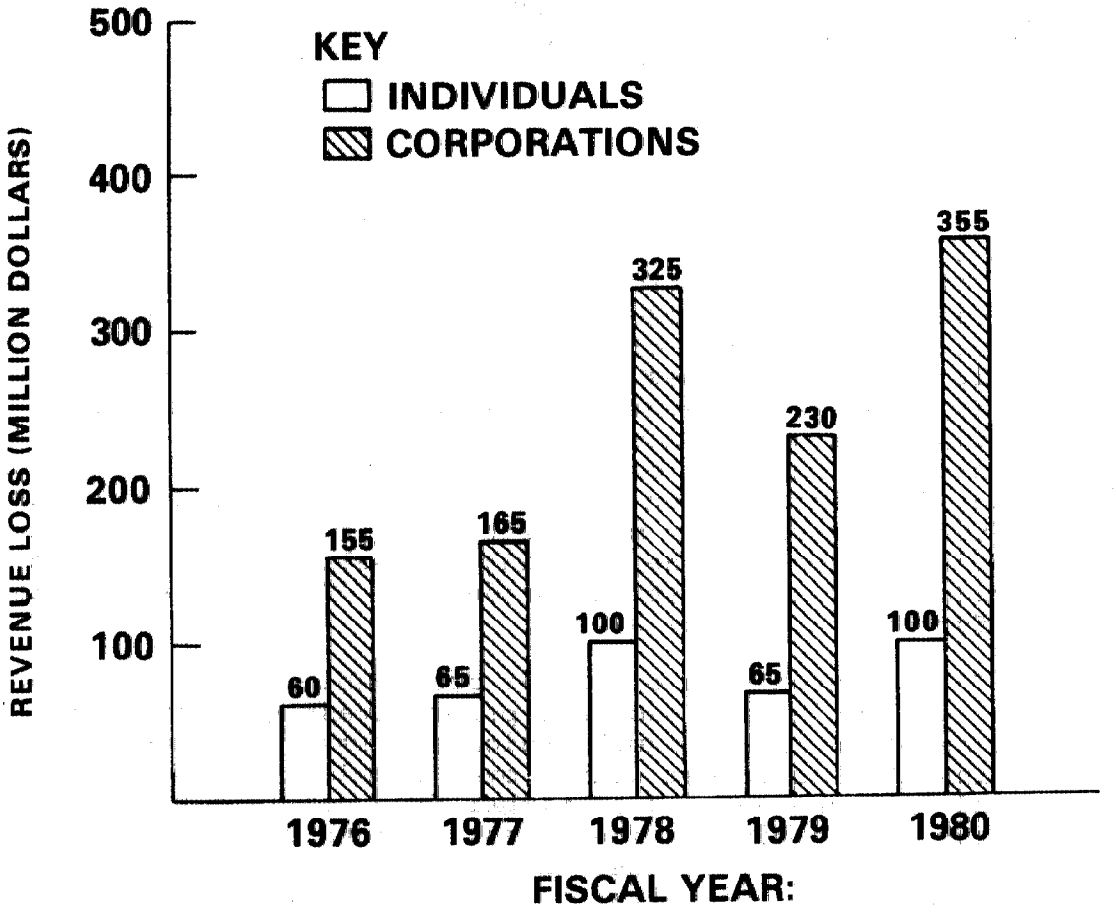
The amount of revenue loss for benefits accorded individuals is based on a percentage of revenue loss estimated for corporations. The procedure used to estimate this loss is based on a 1962 study, which shows that the amount of capital gains from timber income for individuals was about 30 percent of the amount of capital gains determined for corporations. But because of factors such as partnerships, minimum tax offset and occasional operating losses, the capital gains for individuals does not always compute to exactly 30 percent, resulting in the different annual ratios shown in Figure 4. This 1962 basis is still used by the Department of the Treasury in estimating the amount of timber capital gains tax expenditure for individuals.

CONCERNS REGARDING CAPITAL GAINS TREATMENT OF TIMBER

We have several concerns regarding timber capital gains tax expenditures. The first is that, given existing, publicly available data, their effect on site improvement or reforestation needs cannot be definitively assessed. Neither the Forest Industries Committee on Timber Valuation and Taxation nor any other of the many sources contacted by us during this review could provide firm evidence to support the generally claimed values of capital gains tax treatment for conservation and reforestation.

A second concern pertains to distribution of capital gains benefits. Figure 4 shows that, according to Department of the Treasury estimates, timber industrial firms receive about 76 percent of capital gains while individual forest owners receive about

FIGURE 4
ESTIMATED REVENUE LOSS DUE TO CAPITAL GAINS TAX TREATMENT OF TIMBER INCOME



SOURCE: U.S. BUDGET, SPECIAL ANALYSIS

24 percent. However, the data below show that, in 1976, farm and other private individuals (nonindustrial owners) supplied a greater percentage of roundwood and sawtimber than industrial lands.

SUPPLY OF TIMBER FOR 1976 BY OWNERSHIP

	Roundwood	Sawtimber
	(percentage)	
Farm and other private individuals	46.4	38.7
Forest industries (corporations)	30.4	33.0
National Forest	15.5	19.4
Other public	7.7	8.9
Total	100.0	100.0

Source: U.S. Forest Service.

This inverse relationship between capital gains benefits received and timber produced affirms another basic point made in the previously cited 1972 special analysis: "The tax subsidy program reverses the pattern of most direct subsidy programs because it favors the large integrated timber company and gives almost nothing to the small woodlot farmer." At a minimum, the lack of alignment between actual timber production and distribution of capital gains benefits suggests that the Congress needs much better information to evaluate the effectiveness of the existing tax policy in regards to individual versus industrial producers. This matter is examined further in chapter 3.

Third, purchasers of timber from public lands can receive, without having made any prior investment, capital gains benefits in the same fashion as timber producers who have invested in forest stands over decades. Income or gain derived from the cutting of timber from public forests may be taxable at capital gains rates. But this allowance of capital gains benefits does not have any apparent relationship to the Congress' objectives in passing the 1944 capital gains legislation. There is no data to show that individuals and firms cutting timber from national forests make long-term investments in the land or replacement stands.

To receive capital gains treatment under current tax law, timber companies need only to have owned the timber or to have had a contract right to cut timber for a period of time specified by the Internal Revenue Code. Currently, it is a year from the date of purchase or the date a contract right to cut begins. The Forest Service and the Bureau of Land Management

prefer that purchasers of public timber remove it expeditiously. However, the typical purchaser, particularly in Western forests, does not cut his timber within 1 year, holding it for a period necessary to qualify for capital gains treatment.

The tax expenditures associated with these practices are not insignificant. We estimated that, on Forest Service sales alone, tax expenditures calculated on the increase in sales value from the time of purchase to the time of harvest of public timber approximated $305 million for the 3 fiscal years 1975-1977, assuming the beneficiaries had held cutting rights for at least 2 years before harvesting. Since timber is sold from other public lands (such as those controlled by the Bureau of Land Management and the Department of Defense) under similar circumstances and cutting practices, the tax expenditure would be even greater.

It might be argued that the selling agencies (and therefore the public) are the beneficiaries of these tax expenditures. We believe that buyers, anticipating capital gains, might increase their bids accordingly and the selling agency would receive higher revenues, equivalent to the capital gains benefit. But this would occur only under conditions of perfectly competitive bidding, and there exists a body of professional literature which documents that far-less than perfect competition attends sales of public timber. 1/

Consequently, significant tax expenditures are being made with no real understanding as to their distribution or effect. One possible means for overcoming this defect would be to analyze the capital gains receipts and expenditure patterns of major purchasers of public timber.

A 1976 report by Oppenheimer and Co. (New York investment firm) shows that the timber self-sufficiency of 14 major timber processing firms ranged from 16 to 89 percent. Timber self-sufficiency of a wood processing company can be expressed as a ratio of the company's annual timber consumption to annual growth (million cubic feet) added to its standing timber inventories. Figure 5 shows that 10 firms were less than 50

1/See, for example, "Competition and Oligopsony in the Douglas Fir Lumber Industry", Walter J. Mead, Bureau of Business and Economic Research, University of California, Los Angeles, 1966, and "Competition for Federal Timber in the Pacific Northwest - An Analysis of Forest Service and Bureau of Land Management Timber Sales," U.S. Forest Service, 1968.

percent self-sufficient. While the self-sufficiency of some firms has increased in recent years, several have decreased. A December 1979 report shows that the self-sufficiency of 12 major timber processing firms ranged from 30 to 90 percent. Figure 6 shows that six firms were less than 50 percent self-sufficient while six were 50 percent or greater.

To the extent that processing firms are not supply self-sufficient, they engage in timber purchases and are likely to be receiving capital gains benefits. Whether they contribute, in return, to public lands reforestation and related objectives is unknown. Major timber purchasers may be assisting public lands production harvesting indirectly, for example, by using capital gains benefits to finance modern removal equipment. But this, at present, is merely speculative. The Congress may wish to specifically examine, or have further examined, this particular aspect of the timber capital gains issue and decide if the benefits warrant continuation of tax expenditures.

NEED FOR NEW ANALYTICAL TOOLS

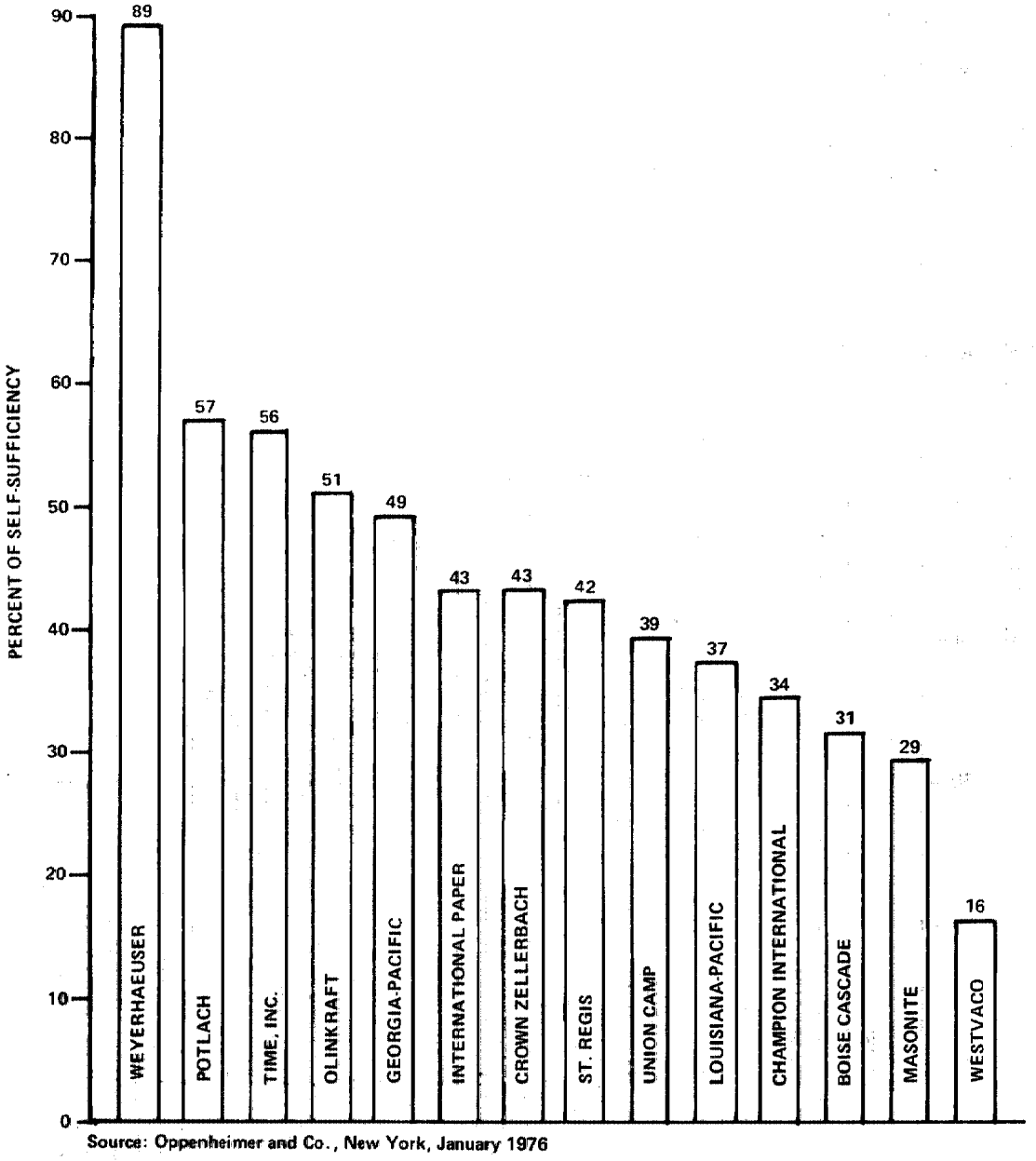
The same principles involved in public timber capital gains apply, in concept, to private sector purchases and sales. Timber cutters on private lands may well be realizing capital gains benefits without making any investments to assist future timber production. This situation, coupled with the present scarcity of useful data for public policy analysis, suggests the need for constructing a private sector forestry policy "model" or analytical framework. The Treasury Department has suggested to us five essential features of such an analytical model. These are

- --the market structure of the lumber and wood products industries;
- --the relationships between inputs needed for timber production and the outputs produced, on a species-specific basis;
- --a measure of the amount by which present subsidies (both within and outside the tax system) reduce private forest costs given the relationship between inputs and outputs;
- --given the relationship between inputs and outputs, a measure of the responsiveness of future stumpage supply to a given percentage reduction in the private cost of production, i.e., a measure of supply elasticity; and

Figure 5

TIMBER SELF-SUFFICIENCY OF

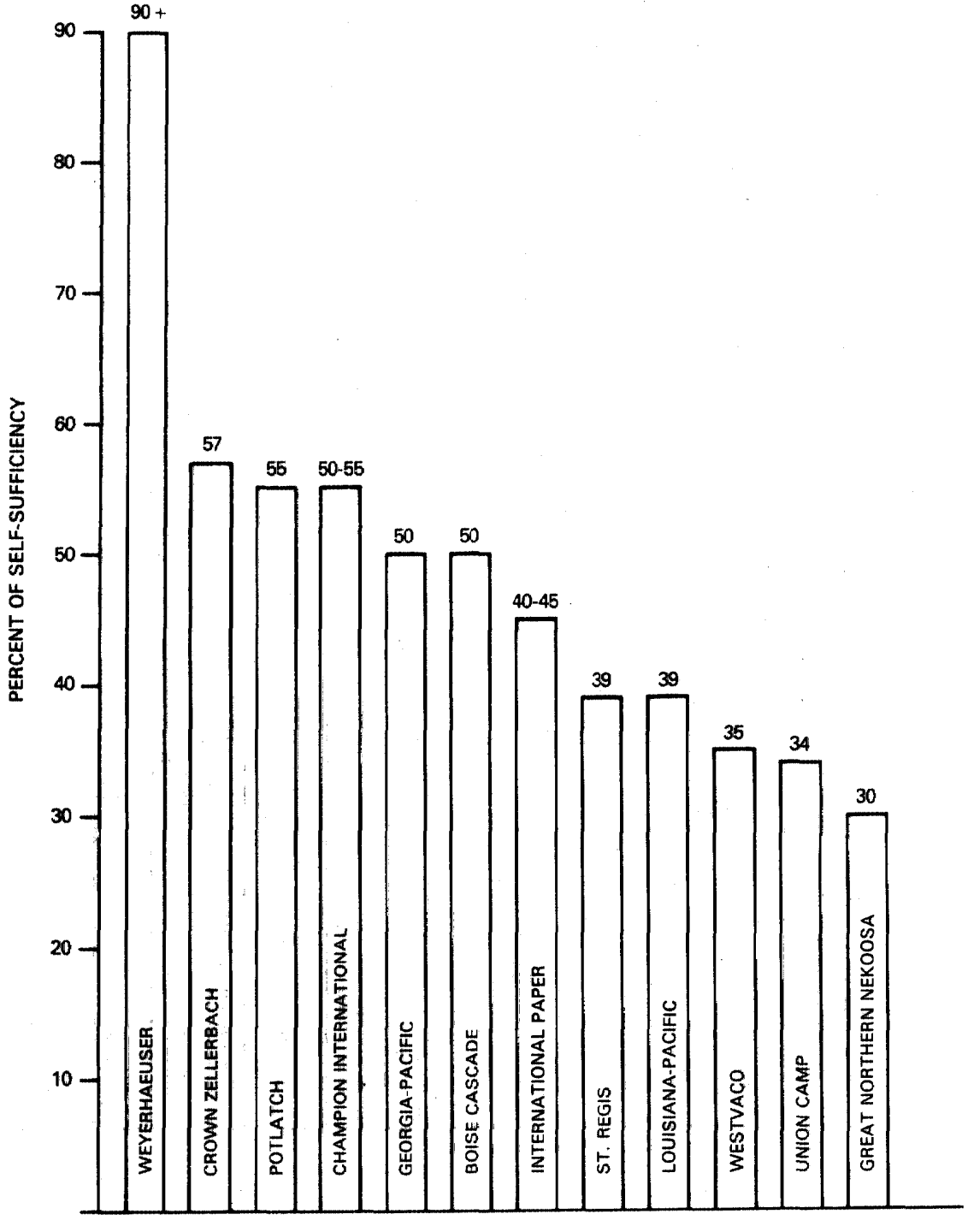
MAJOR TIMBER PROCESSING FIRMS



Source: Oppenheimer and Co., New York, January 1976

Figure 6

TIMBER SELF-SUFFICIENCY OF MAJOR TIMBER PROCESSING FIRMS



SOURCE: Forbes, December 24, 1979

--information about capital markets and their role in facilitating capital formation in forestry.

We agree that there is a need to develop a framework, model, or set of models capable of quantitatively assessing the effect of various financial incentives on the timber supply response of the private sector. Although such an analytical effort can be based on any of several possible approaches to studying investment and supply response behavior, it should be able to give detailed answers to questions such as:

--What are the inherent advantages and disadvantages of alternative incentive programs, such as capital gains, direct cost-sharing, or amortization of reforestation expenditures?

--What subgroups of timber procedures--industrial, non-industrial, large, small, etc.--would most likely avail themselves of each type of incentive?

--How much of these incentives would be devoted to future timber production by the private land-holders and what sort of increases in future timber supplies might result from this utilization?

--How much would this potential supply response affect future timber prices, timber quantities marketed, and imports and exports, both nationally and regionally.

--What are the potential benefits to society of implementing the various incentive programs?

--What would the various incentives cost the taxpayers?

The Forest Service and the Forest Industry Council have taken an initial step toward developing an analytical model by assembling a data base containing detailed timber production and cost data for 25 timber producing States. More work is needed, however, to identify the size and ownership patterns of potential timberstands in other States.

In addition, the Forest Service has been developing experimental models of the timber industry. The methodologies employed in these models, and the expertise developed in their construction, could provide a foundation upon which the investment incentive policy analysis could be built.

The development of appropriate analytic models could help greatly in understanding the impact of existing or alternative tax policies on timber availability, production, and prices.

The models could also assist in the assessment of long-established, yet essentially dissimilar objectives for the private sector. As a specific example, it is one matter for the Congress to consider tax policies which place or keep the timber industry on a par with other capital investors, i.e., allowing capital gains tax treatment of timber income. But matters of tax equity aside, it seems quite another issue to ascertain effective and efficient tax incentives necessary to achieve higher levels of reforestation and future timber production. Not all sectors of private industry may need similar assistance to achieve a satisfactory level of performance. For example, it might be desirable to distinguish between softwood and hardwood production incentives. The results of proper modeling analysis could assist much more discriminating decisionmaking.

The first step should involve deriving a consensus among the industry (as represented, say, by the Forest Industry Council and the Forest Industries Committee on Timber Valuation and Taxation), Forest Service, and Treasury on the best way to structure the modeling effort. The Forest Service could then take the lead, assisted as appropriate by Treasury, in developing appropriate models, either inhouse or through contracts, for analyzing specific issues, as suggested by the preceding list of questions. Industry representatives could serve as consultants to the entire process and also help determine how timely data from the private sector might be secured and used without undue reporting burden or violation of proprietary considerations.

Treasury has estimated, informally, that a "first generation" timber policy analysis model could be made operational in about a year's time, given serious administrative support for its development. Forest Service believes more time would be required for complete model development. But useful analysis could emanate from even a first generation model. Given the mounting concern over timber supply-price issues, there can hardly be any justification for support being withheld from prompt, initial model development.

CHAPTER 3

REFINING ESTIMATES OF TIMBER PRODUCTION POTENTIAL FROM NONINDUSTRIAL FOREST LANDS

Over the years, various public and private reports have contended that of the three sources of timber supply--public, industry, and nonindustrial forest lands--the greatest potential for increasing the Nation's timber supply is the nonindustrial privately owned forests. About 483 million acres of forests are classified as commercial timberland, and nonindustrial lands involve 278 million acres, or 58 percent of the total.

We examined the basic contention that nonindustrial privately owned forest lands have a great potential for increasing timber production. We explain why this potential may be overstated, especially in terms of economically usable acreage. We also considered the relation of capital gains tax treatment to reforestation practices of nonindustrial forest owners and the effectiveness and coordination of assistance provided by Federal, State, and private forestry programs.

SOUND ESTIMATES OF ACTUALLY PRODUCTIVE NONINDUSTRIAL ACREAGE NOT DEVELOPED

Private, nonindustrial forest owners are those who do not have wood-processing facilities. The ownership is very diverse and includes farmers, housewives, doctors, lawyers, second home owners, retirees, and many others. Total private ownership of commercial timberland includes about 347 million acres. About 278 million acres, or 80 percent, are owned by nonindustrial private owners. The table below shows total private commercial timberland ownerships and geographical locations.

Although nonindustrial private forests account for about 278 million acres, we believe there is an urgent need to identify those lands with biological and certain economical potential for timber productivity, those lands that are located within a reasonable distance of existing or potential markets, and owners whose motives support timber growing and increased production.

PRIVATE COMMERCIAL TIMBERLAND
BY OWNERSHIPS AND LOCATIONS
JANUARY 1977

Ownerships	Total acres	Percent	Locations					
			East			West		
			North	South	Total	Rocky Mountains	Pacific	Total
	(millions)		million acres					
Nonindustrial:								
Farmer	115.8	33.4	38.8	61.4	100.2	10.0	5.6	15.6
Other private	162.2	46.8	65.9	83.4	149.3	4.8	8.1	12.9
Total	278.0	80.2	104.7	144.8	249.5	14.8	13.7	28.5
Forest industry	68.8	19.8	17.7	36.5	54.2	2.1	12.5	14.6
Total private	346.8	100.0	122.4	181.3	303.7	16.9	26.2	43.1

Source: U.S. Forest Service.

Two recent studies have been made of the economic opportunities for increasing nonindustrial timber supplies. One was done by the U.S. Forest Service and the other by the Forest Industries Council.

In its 1980 Assessment, the Forest Service estimated that only 124 million (45 percent) of the 278 million acres of nonindustrial forest land had economic opportunities.

The management opportunities identified by the Forest Service study group vary by site and region, and include two major types--reforestation/conversion and stocking control. According to results of this study, applying appropriate management techniques to the 124 million acres would increase net annual timber growth of nonindustrial forests by about 9.1 billion cubic feet or about 32 percent of the projected demand of 28.3 billion cubic feet for the year 2030.

Forest Service estimates of economic opportunities were based on (1) prescribed specific treatments for existing conditions on commercial timberlands, (2) assigned probable costs of application, (3) estimated increases in timber yields from each treatment, and (4) outlined existing ranges of stumpage values. Resource analysts in the Forest Service added acreage estimates for each identified forest condition. All cost and response data for each treatment were averages, and calculations were based on deflated or real costs, prices, and interest rates.

The Forest Service estimate may be unrealistically high. A background paper pertaining to the above Forest Service study states that:

> "Acres * * * represent a theoretical or outside limit. Every acre in a given stand condition is listed. No thought was given to tracts that are too small for economic management, too inaccessible to warrant investment, or too likely to be converted to nonforest use. Thus, acres represent potential maxima, not probable commitments to forestry."

One Forest Service representative estimates that perhaps only 10-20 percent of the potential economic acreage could be expected to be managed for increased timber production. The rest would be eliminated due to (1) small holdings, (2) unwillingness of owners to make long-term investments, and (3) owners' inability to raise capital.

The Forest Industry Council's "Forest Productivity Report" (1980) covered 25 states and included 405 million acres of commercial timberland, including 241 million acres of nonindustrial commercial timberland. The Council's report identified 139 million acres of commercial timberland with economic opportunities; however, only 79 million acres were identified with nonindustrial ownerships.

We believe the differences in the foregoing analyses confirm the need for further work to develop sound estimates of actually productive and available nonindustrial acreage for timber production. A major factor affecting estimates of availability is the discount rate or social rate of interest used. This matter is explained further in the Forest Service comments at appendix I. In addition, there are other factors which require much more prominent attention.

For example, many nonindustrial land owners do not hold land for its timber value. Some hold it for future, nontimber development, and expect to make money selling it. Some acquire land as a recreation area. In the State of Oregon, for example, nonindustrial owners, collectively, own 3.5 million acres. However, only 20 percent of the acreage is managed for timber production.

Several studies have identified socioeconomic factors affecting landowners' attitudes toward forest management as follows:

--The quality of timber management practices is influenced by various characteristics of the owners, for

example, age, distance from forest, length of tenure, and ownership objectives.

--Persons most likely to practice timber management own the relatively well-stocked lands, are in favorable asset positions, and own larger-than-average tracts of forestland. (Recent studies in several States show average ownership ranging from about 24 acres up to 52 acres.)

--Large areas of nonindustrial private forestland are found in regions where there is little or no industry forestland and lack of markets has inhibited the harvest of timber from nonindustrial private forests.

These studies and research efforts are steps in the right direction but are judged an insufficient basis for estimating the increased production potential of nonindustrial forest lands. The Forest Service is working to refine estimates further, and we believe that such nonbiologic factors as the mix of motivations among owners for owning forest land and the range of economic and financial problems small landowners experience should also be included in the criteria for determining nonindustrial acreage with actual production potential. Therefore, the definition and/or criteria for winnowing out and identifying actually productive private nonindustrial forest lands should include at least the following:

--Acreage that is sufficiently biologically productive.

--Timber production should be within a reasonable distance of existing or potential markets.

--Owners' motives support timber growing and do not preclude increased production.

These assessments should include not only the opportunities involving such traditional forest products as sawtimber and pulp chips, but also incorporate the potential for using existing forest residues to produce energy and new wood products, for example, structural flakeboard. In a subsequent report, we will discuss the potential of wood residues --including logging debris, lower value woodlands, and mill residues--for producing energy and products, and identify factors limiting increased use of these materials as well as potential solutions.

FURTHER EVALUATION OF PROPOSED TAX INCENTIVES AND FORESTRY LOAN PROGRAM NEEDED

Recent congressional hearings show that nonindustrial forests are being cut, but not replanted, at a rate of about one-half million acres a year. The most serious problem cited by nonindustrial forest owners is a lack of capital to make long-range investments in site establishment and reforestation.

An interagency committee report entitled "The Federal Role in the Conservation and Management of Private Nonindustrial Forest Lands" (1978) states that these owners invest little money in forest management because, historically, there have been low returns relative to investment costs. Other factors that discourage nonindustrial forest owners investments in reforestation and management include

--higher interest costs on borrowed or invested money than can be recovered from investments in forestry,

--unacceptable time lags between investment and returns, and

--high management costs and market disadvantages because of relatively small acreage held by these owners.

Cash-flow problems are cited in other recent studies. For example, a 1978 "Alabama Forest Productivity Report," produced jointly by the Alabama Committee on Forest Productivity and the Forest Industry Council's Committee on Forest Productivity, cites a number of restraints to improving productivity on private nonindustrial lands including the following:

--The relatively high initial costs of regeneration and the long investment period--usually over 20 years--are major factors discouraging additional investments.

--Forest management does not offer a primary investment opportunity for a majority of small landowners. Other economic needs have a higher priority and, because adequate capital is not available, there is a general lack of interest in long-term forest management investments.

--Such Government assistance programs as the Forestry Incentives Program have failed to overcome these constraints because of: (1) insufficient and irregular

funding; (2) untimely allocations; and (3) restrictions on participation.

Although Department of the Treasury estimates show that nonindustrial forest owners received about $.4 billion of the estimated $1.6 billion total capital gains accorded timber owners in fiscal years 1976-1980, the amount of unreforested nonindustrial lands continues to grow. The conclusion can hardly be avoided that capital gains tax treatment, by itself, is not adequate to overcome the "front-end" cost problems associated with site preparation or reforestation of nonindustrial lands.

Various forms of assistance to help smaller timber landowners with their capital or cash-flow problems have been considered by the Congress. These include (1) already authorized direct cost-sharing assistance, with the Federal Government paying up to 75 percent of the costs of planting and timber stand improvements, (2) recent amendments to the tax code to allow limited deductions incurred for reforestation expenses, and (3) a proposed loan program with coverage restricted to parties owning less than 500 acres of commercial timberland. Each of the options is further described below.

Allowing Deductions for Reforestation Expenses

On October 14, 1980, the President signed into law H.R. 4310, the "Recreational Boating Safety and Facilities Improvement Act of 1980," which contained amendments to the Internal Revenue Code of 1954 to provide a deduction for expenses incurred for reforestation. The amendments allow qualified taxpayers to deduct up to $10,000 of reforestation expenditures during each tax year. The deduction is available to both individual and corporate taxpayers and is intended to be an "above the line" deduction for individuals, that is, a deduction in computing adjusted gross income.

Under previous tax law, site establishment and reforestation costs had to be capitalized and were recovered through depletion allowances decades later when the timber was harvested. It is estimated that the new $10,000 limit will allow owners to plant about 100 acres of trees and will encourage them to replant these lands once timber is harvested.

In earlier congressional testimony on the bill, the Chief of the Forest Service expressed concern about the increasing area of land in private ownership that is not being reforested after harvesting. He supported the objectives of accomplishing reforestation on private lands and cited a recent study which shows that over a 10-year period in the South alone, as much

as seven million acres of pine forests may have been replaced by economically less desirable hardwoods or remained unstocked.

The new amendments to the Internal Revenue Code of 1954 provide that a taxpayer may elect to amortize, over a 7-year period, up to $10,000 of qualifying reforestation expenditures incurred each year in connection with qualified timber property. The maximum annual amortization deduction in any taxable year is $1,428.57 ($10,000 divided by 7) and total deductions for any one year will reach $10,000 only if a taxpayer incurs and elects to amortize the maximum $10,000 of expenditures each year over an 8-year period--the full $10,000 deduction being reached in the eighth year. The amendments would also allow a 10-percent investment tax credit on reforestation costs eligible for the amortization election.

It is estimated that the new $10,000 amortization deduction will enable a private forest owner to reforest and manage about 100 acres, assuming an average cost of $100 per acre. Therefore, based on the total estimated annual tax expenditure of $36 million for fiscal years 1981 through 1985, reforestry practices could be accomplished on about 360,000 acres over a 5-year period.

Even as the nonindustrial reforestation problem grows at a rate of 500,000 acres per year, the level of assistance contemplated under the new amendments would be unlikely, we believe, to affect future timber production in a fashion large enough to counter rising timber prices. Further, the expensing form of assistance still leaves the small landowner with the problem of having to secure the cash necessary to make actual reforestation investments.

In addition, the 96th Congress 1/ had under consideration H.R. 4498 and H.R. 5798 which would have provided tax credits for qualified forestry expenditures. H.R. 4498, introduced on June 15, 1979, would have provided a credit against tax liability for the taxable year equal to the greater of 25 percent of qualified reforestation expenditures each year up to $5,000 or 10 percent of qualified expenditures paid or incurred during the taxable year.

H.R. 5798, introduced in November 1979, would have provided a credit for the taxable year equal to the sum of (1) 75 percent of qualified forestry expenditures up to $5,000, (2) 50 percent of qualified forestry expenditures over $5,000, but not in excess of $15,000, (3) 25 percent of qualified forestry expenditures over $15,000, but not in excess of $25,000, and (4) 10 percent of qualified forestry expenditures over $25,000, but not in excess of $50,000.

1/ We do not know whether this legislation will be introduced in the 97th Congress.

According to Department of the Treasury testimony, the revenue loss from the tax credit in H.R. 4498 would have been about $99 million for fiscal years 1981-1985. Of this amount more than half would have been attributable to industrial rather than nonindustrial forestry expenditures. With respect to H.R. 5798, Treasury estimated the revenue loss would be about $113 million for fiscal years 1981-1985.

The Treasury was opposed to both these bills stating in part that (1) the issues raised are subsidy, not tax policy, issues, and (2) neither bill addressed the tax policy question of how the basic rules of income tax accounting should be applied to land suitable for forestry, or to the structure of tax rates applicable to corporate or personal taxpayers contemplating entry into forestry activities.

The Forest Industries Committee's testimony was fully supportive of H.R. 4498, but urged modification and expansion of the bill to include 7-year amortization for capitalized reforestation expenditures.

Forestry Loan Assistance

The Congress also had under consideration, H.R. 4718--the Forestry Loan Act of 1980. It authorized and directed the Secretary of Agriculture to conduct a 5-year pilot loan program. This bill provided for periodic loan disbursements to owners of nonindustrial forest lands to encourage them to implement and maintain forest management programs and thereby increase the production of industrial wood.

Under H.R. 4718, the Government would have insured and guaranteed loans not to exceed a total of $50 million. Any individual, group, Indian tribe or other native group, association, partnership, corporation, or other legal entity was eligible if such a person (1) owned less than 500 acres of land capable of producing industrial wood, (2) was not principally engaged in the manufacture of wood products, and (3) certified in writing that he or she was unable to obtain credit elsewhere at rates and terms comparable to those in this act.

For borrowers, the Secretary would not insure any loan obligations which exceeded 50 percent of the projected market value of the timber to be harvested during and at the end of the loan period, provided that periodic loan disbursements did not exceed $25 per acre per year. The loan periods would not exceed 15 years with respect to existing stands of timber and 30 years with respect to land that was to be forested.

The bill also provided that the landowner had to prepare, keep current, and adhere to an individual forest management plan developed in cooperation with and approved by the State

forester or equivalent State official. The plan would describe the activities needed to establish a commercial forest, or maintain or increase the productivity of the forest land. The landowner could have used the loan proceeds in any manner he deemed appropriate as long as the provisions of the forest management plan and loan agreement were observed.

During committee hearings on H.R. 4718, many witnesses pointed out that the lack of capital is the largest obstacle facing owners who are considering developing their forest land. Almost all witnesses agreed that a loan program that provides periodic cash disbursements would enable forest owners to help meet current expenses plus realize part of the potential profits of the investment within their lifetime. The Forest Service stated that, if the pilot program is proved feasible, the majority of loans over the long-run are anticipated to be guaranteed private sector loans and, thus, funds are periodically replenished.

However, the cost effectiveness of H.R. 4718 appears questionable. A Congressional Research Service analysis states that a $50-million pilot loan program would reach only about 450 forest owners with an aggregate acreage of 28,000. The analysis also states that the $25 per acre per year limit presents special problems because the needed reforestation work may require $100 or more per acre in the first year.

Additionally, such a loan program, by its nature, could entail large administrative costs. Were it expanded to apply significantly to the reforestation backlog problem, administrative costs themselves could become significant.

Direct Assistance

Direct financial assistance to nonindustrial forest owners is already authorized through the Forestry Incentives Program. This program, established under the Agriculture and Consumer Protection Act of 1973, and subsequently in the Cooperative Forestry Assistance Act of 1978, provides Federal cost-sharing with private landowners for tree planting and timber stand improvement.

The 1978 legislation restricts cost-sharing participation to owners of 1,000 acres or less of private forest land except where significant public benefits will accrue. In no case, however, may cost sharing be approved for landowners owning more than 5,000 acres. The Federal cost-share can range up to 75 percent depending on the cost-share rate as determined by the Secretary of Agriculture. The maximum cost-shares that a person can earn annually for forestry practices is determined by the Secretary of Agriculture and the designated State committee.

The program is jointly administered by three Federal and State agencies. The Forest Service provides such technical program input as practice specifications and recommendations on funding apportionment procedures. The Agricultural Stabilization and Conservation Service has administrative responsibilities, and handles eligibility, waiver procedures, and payments to applicants. State forestry agencies and private forestry consultants provide technical assistance to landowners, and State forestry personnel check the installed practice to see that it complies with practice guidelines.

It has been stated that the Forestry Incentives Program has several important advantages over the proposed Forestry Loan Program, including (1) it is easier to administer, (2) it requires landowner contribution, (3) it creates no lien on the land, and (4) it offers growing opportunities for enhancing Federal, State and private cooperation. Further, under the Forestry Incentives Program, all expenditures go into forestry enhancement, while under H.R. 4718, there was no requirement that the landowner enhance the forest--only that the current level of growth be maintained.

Actual funding for the Forestry Incentives Program is about $13 million annually. There is a backlog of $14 million in pending requests. A March 1979 report by the Management Services Division of the Agricultural Stabilization and Conservation Service shows that from the inception of the program through September 30, 1978, the cumulative accomplishments were as follows:

FORESTRY INCENTIVES PROGRAM--1974-1978

Practices	Number Participants	Number Acres	Cost shares	Average per acre cost
Tree planting	16,127	429,075	$20,965,730	$48.86
Tree stand improvement	14,738	477,112	9,466,034	19.84
Special forestry	17	3,804	9,278	2.44
Totals	30,882	909,991	$30,441,042	$33.45

Summary

We concur with the need for assistance to small nonindustrial landowners to help overcome their capital or cash flow problems. But the most desirable form of assistance is still open to question, as is the appropriate annual level of assistance.

In striving to reach useful conclusions about these matters, we believe a necessary prerequisite is the examination

of nonindustrial acreage by the Secretary of Agriculture to identify actually productive acreage and those owners whose objectives support timber production. Based upon refined acreage data, the Secretary should identify what alternative financial assistance methods--tax incentives, loan program, or direct assistance--would provide the most effective assistance.

These studies and analyses should show, but not necessarily be limited to estimates of (1) annual tax expenditures and/or costs, (2) number of participants under each alternative, (3) number of acres of nonindustrial forest land to be planted, reforested, and/or managed, and (4) potential increase in future timber inventories. The Treasury Department should be an active participant in developing the costs and benefits of the tax policy and financial assistance alternatives.

Based on the results of these studies and analyses, the Secretary of Agriculture should report to the Congress his recommendations for tax policy and/or financial assistance methods that he believes would most effectively increase the supply of timber on nonindustrial forest lands. The Secretary should also make clear the prospective implications of various levels of assistance, so that the Congress can judge them in relation to future timber price problems. This comparative analysis could be accomplished in conjunction with the private sector "modeling" efforts discussed in the preceeding chapter, but need not be made dependent upon full model development.

INCREASING THE EFFECTIVENESS OF FORESTRY ASSISTANCE PROGRAMS

The considered importance of the potential of nonindustrial forest lands has been recognized because numerous Federal, State, and private forestry assistance programs have been initiated during the past several decades to develop the potential.

In addition to the Forestry Incentive Program, some of the major Federal programs authorized by the Congress have been:

--The Soil Conservation and Domestic Allotment Act of 1936, which established the Agricultural Conservation Program and allowed cost-sharing funds to private forest landowners for tree planting and forest improvements.

--The Forest Products Act of 1928, which authorized and directed the Forest Service to determine, demonstrate, and promulgate the best methods of reforestation and of growing, managing, and utilizing timber and other forest products, and of obtaining the fullest and most effective use of forest lands. It also directed the

Forest Service to determine economic considerations for establishing policies for managing forest lands. (This Act was repealed in 1978.)

--The Conservation Reserve Program, which was authorized under the Soil Bank Act of 1956. Among other things the Act provided for establishing and maintaining vegetative cover, including the planting of trees, and providing cost-sharing, technical assistance, and annual payments. (This Act was repealed in 1965.)

According to the Report of the President's Advisory Panel on Timber and the Environment, a number of States have also initiated programs over the years to assist private forest owners to improve the production and management of their lands. For example, North Carolina began a program in 1969 to provide such services as tree planting and prescribed burning by State Forest Service crews on a custom fee basis or by equipment rentals to qualified contractors.

Texas started a program in 1964 to create a forest landowner aggregate where small, nonindustrial private forest owners were organized for the purpose of increasing forest capital and to market their timber in an even, orderly manner for the mutual benefit of the owners and the forest industries that depend on them for timber.

Virginia started a landowner assistance program in 1971 to help owners get their land into production. This program is funded by imposing a tax on pine cut and by providing a matching amount from the State's general fund. The funds are used to encourage and assist small landowners in preparing their nonproductive pine land for reforestation and to plant seedlings.

A number of special programs have been developed by other sponsors--forestry associations, local groups, and forest industry firms. The associations generally aim at all forest land, local groups at lands held by their own members, and forest industry firms at privately owned land in the industry's supply area.

The American Tree Farm System was started in 1941 by the forest industry and is administered through the American Forest Institute. The program includes more than 37,000 private landowners and over 79 million acres. Its objective is to stimulate interest among woodland owners to better manage their forests for repeated tree crops.

In addition, several forest product and paper industry firms have provided assistance to private landowners since

World War II. Generally, industrial firms offer free technical advice, marketing assistance, long-term land management planning, and treemarking services. Costs of site preparation, tree planting, and timber stand improvements are paid by the private landowner.

Notwithstanding the numerous programs initiated by the Congress, the States, and private industry to develop the production potential of nonindustrial forests, there has been a general disappointment in their effectiveness. A number of studies have addressed these concerns. One particularly important report, entitled "Policy Alternatives for Nonindustrial Private Forests" (1977), stated that:

> "For over forty years, concern has been expressed by the forestry profession over what has come to be known as the 'small forest owner problem.' The amount of work that has been devoted to searching out causes and solutions to the problem can only be described as voluminous, and it perhaps indicates the magnitude of importance that the subject has achieved in the minds of researchers."

The subject report resulted from a workshop held in late 1977, sponsored by the Society of American Foresters and Resources for the Future. The consensus of this report was that existing governmental programs directed to the nonindustrial sector are frequently plagued by a multiplicity of administering agencies and are often ill-defined, poorly coordinated, and ambiguous. It was also the consensus that many existing programs have had only limited success and are frequently not cost effective.

This workshop report cites a number of problems common in Federal forestry assistance programs as follows:

--There are no adequate economic evaluative tools. Specific problems include the lack of measurement of cost effectiveness at all levels.

--Program guidelines generally lack economic criteria and are often entirely numerical in nature, citing the number of acres planted, treated, or brought under forest management.

--Many Federal program procedures do not provide for an accurate profile of the nonindustrial forest owners, including such details as their personal characteristics, motives, goals, financial situation, and their nontimber objectives.

The most serious defect cited by workshop participants was <u>insufficient coordination and cooperation between and</u>

among the service-delivering agencies. Inadequately defined national goals and, consequently, agency roles, were another problem. Overprotection of agency jurisdictional interests was cited as an example of interagency conflicts.

While there is an obvious need for better cooperation and coordination among the Federal, State, and private organizations that provide forestry assistance, we believe that a necessary precondition to improved program performance is the winnowing out of nonindustrial acreage to identify those lands that truly offer important biological and economic opportunities. Forestry assistance programs should then be firmly focused on such lands, and their cost-effectiveness measured in light of a much more disciplined focus. This further analysis would be a natural and integral part of the private sector modeling and analytical effort discussed earlier.

CHAPTER 4

CONCLUSIONS, RECOMMENDATIONS, AND MATTERS FOR CONSIDERATION BY THE CONGRESS

CONCLUSIONS

Timber, America's most valuable renewable resource, has been the subject of many recent reports concerned with possible shortages by the turn of the century. We have previously explained our serious reservations regarding public policy focus on timber shortages. We believe any "shortage" will appear in the form of rapidly rising prices, and our major concerns relate to the social and economic consequences of forecasted timber price increases. One option for trying to temper escalating timber prices is to promote increased timber supply.

We believe that tax policy has an important relationship to timber production. In this report, we have examined the relationship of Federal capital gains tax treatment to overall timber production and reforestation by the private sector, then we considered the production potential of nonindustrial private forest lands.

Capital Gains Taxation of Timber Income

The forest industry has long contended that the timber capital gains tax provision enacted in 1944 has been the most influential and positive factor in maximizing reforestation of the Nation's private forests. However, the tax law does not require that capital gains benefits be applied to reforesting or improving management techniques. Tax benefits are based on income from timber cut rather than on what the taxpayer spends for site establishment, reforestation, and timber management.

Even though the forest industry claims that capital gains tax treatment adopted in the mid-1940s quickly brought both increased planting and higher productivity on private forest lands, other factors could have led to substantial increases in forest planting and forest management in the absence of the tax revision. Among those factors were population increase, movement to the suburbs and associated increased demand for new housing, reduced inventories of old-growth timber, and the resulting sharp increases in the price of timber stumpage.

None of the many sources we contacted during this review--whether private, public, or academic--could provide firm evidence to support generally claimed values for conservation and reforestation from capital gains tax treatment.

Capital gains tax treatment of timber income is considered a tax expenditure. Based on the Department of the Treasury's existing method of calculating this tax expenditure, the true cost of capital gains tax treatment of timber income is unknown. The estimates which have been prepared for fiscal years 1976-1980 indicate that 76 percent of the benefits ($1.2 billion) accrue to industrial firms and 24 percent ($.4 billion) accrue to individual nonindustrial land owners. However, the latter group supplies the largest percentage of timber supply. The lack of alignment between actual timber production and distribution of capital gains benefits suggests that the Congress needs much better information to evaluate the effectiveness of existing tax policy.

Another concern with present operation of timber capital gains policy is that those cutting and selling timber from public forests may well be realizing capital gains benefits without contributing to long-term investments in the land or replacement stands. Significant tax expenditures are being made in conjunction with Federal timber sales with no real understanding as to their distribution or effect.

Overall, there appears to be no way of resolving the contentious issues associated with timber income capital gains treatment and the future timber supply-price situation unless (1) significantly different analytical techniques are brought to bear, specifically including development of a private sector forestry policy "model" or analytical framework, and (2) an explicit distinction is made between tax policies which place or keep the timber industry on a par with other capital investors versus policies more directly concerned with achieving adequate levels of capital investment to support future timber production.

Production Potential of Nonindustrial Private Lands

Numerous reports and studies have concluded that nonindustrial privately-owned forest lands offer the greatest potential for increasing the Nation's timber supply. Furthermore, many forestry assistance programs have been initiated in response to this conclusion. However, the fact remains that no adequate estimate of nonindustrial acreage production potential exists.

Although nonindustrial forest lands involve 278 million acres, there are strong indications that only a fraction of that acreage could be managed for increased timber production. Such factors as the mix of motivations for owning timber land, marketing constraints and a range of economic and financial

problems small landowners face, even if amenable to increasing timber harvest potential, impinge substantially on realistic projections of nonindustrial lands production potential. Future assessments should include screening criteria such as (1) identification of acreage that is sufficiently economical and biologically productive, (2) production of timber is within reasonable distance of existing or potential markets, and (3) the owners' motives and objectives support timber growing and do not preclude increased production.

A variety of sources indicate that the primary need of production-oriented, nonindustrial forest land owners is "up-front" financial assistance for site establishment and reforestation expenses. In response, the Congress had already authorized the Forestry Incentives Program and had considered additional forms of assistance. A detailed comparative assessment of assistance alternatives--expensing of site preparation costs, Federal loans, or expansion of direct financial assistance--should be compiled as rapidly as possible. The assessment should also make clear prospective production implications of various levels of assistance so that the Congress can judge them in relation to future timber price problems.

The large aspirations accorded nonindustrial forest lands production potential is evidenced by many past and existing Federal, State, and private sector assistance efforts. Notwithstanding their number, there has been a general disappointment in their effectiveness. The consensus is that assistance directed to the nonindustrial sector is plagued by a multiplicity of administering agencies, ill-defined objectives, and poor coordination.

Better cooperation and coordination is needed among the Federal, State and private organizations that provide forestry assistance. But we believe that a necessary precondition to more effective program coordination is evaluating nonindustrial acreage to identify those lands that truly have important biological and economic opportunities. Forestry assistance programs should then be firmly focused on such lands and their cost-effectiveness measured in light of a much more disciplined focus. This further analysis would be a natural and integral part of the private sector modeling and analytical effort.

RECOMMENDATION TO THE SECRETARY OF AGRICULTURE

We recommend that the Secretary of Agriculture take the initiative through the Forest Service to develop a new

analytical framework and expand its analytical capability to deal with tax policy, financial and technical assistance, and related considerations as they affect, especially, the performance of the timber industry in the private sector. In striving to develop this capability, we urge the Forest Service to take full advantage of the expertise of the Department of the Treasury, particularly in analyzing tax policy options, and to elicit, to the fullest possible degree, active collaboration of the private sector.

Parallel with these activities, we urge the Forest Service to strive for greatly refined data and analysis on the production potential of nonindustrial, privately owned forestlands. We believe that the two most pressing priorities are (1) identifying nonindustrial private forestlands with true potential for increasing future timber supplies, and (2) analyzing comparative costs and benefits of alternative forms of tax incentives or financial assistance for private, nonindustrial landowners.

MATTERS FOR CONSIDERATION BY THE CONGRESS

We believe that the Congress should support the expanded analytical capabilities called for in our recommendations to the Secretary of Agriculture. A congressional expression of support would provide an incentive to both the public and private sectors for maximum and efficient collaboration.

The analysis called for in this report would be both of general assistance to the Congress in future policy deliberations affecting the private forestry sector, and of particular assistance in future discussions on appropriations for increasing production from private nonindustrial forest lands.

AGENCY COMMENTS

We provided a draft of this report to the U.S. Forest Service and the Department of the Treasury. The full texts of their comments are included at appendix I.

Both agencies support our basic conclusions regarding the need for improved analytical techniques for assessing financial and tax assistance to the private forestry sector.

The report was modified in response to certain of the agency comments. Certain other comments we could not agree to, however, for the following reasons.

U.S. Forest Service

1. Although it agrees that the analytical capability should be developed, the Forest Service suggests that "an unbiased third party group" be assigned the responsibility. We disagree for two reasons. First, as a practical matter, we believe that the agency with primary programmatic jurisdiction should be responsible for, among other things, assessing tax/investment options affecting its area of responsibility. The Forest Service has the largest Federal responsibility relative to timber production on both private and public lands. Second, with the recent enactment of legislation authorizing new tax incentives to private landowners, it is more important than ever that the Forest Service develop the capability to assess reforestation investment alternatives.

2. The Forest Service states that "a number of years in time and manpower" would be required to overcome existing data deficiencies, and that it "has a very limited number of personnel familiar with the tax field." We recognize that considerable effort will have to be devoted to refining and expanding the pertinent data base. We disagree, however, that useful analyses must be deferred for some indefinite period. The Forest Service is already supporting modeling/analytical efforts directly relevant to the issues at hand. These efforts, and related data assembly and analysis, ought to be augmented through collaboration with both the Treasury Department and the private sector. We see no data-associated problems which might serve as a major impediment to timely, incremental expansion of the Forest Service's analytical capability. As for the manpower shortages, whatever additional resources the Forest Service needs to develop this analytical capability must be requested through its annual appropriations process.

3. The Forest Service suggests that the issues addressed in this report be placed in the context of its overall renewable resources planning effort. We believe that the private owner tax policy-financial incentive issue should, at least at this stage, be kept essentially separate from the renewable resources planning effort. Although both have impacts on future national timber supplies, renewable resources planning is primarily oriented to the public lands and to resource planning. This planning process is quite complex, involving the balancing of a number of important alternatives for lands under the control of the public managers. The focus on incentives to influence private actions will remain sharper and their impacts will be easier to analyze if kept separate. Doing so will not hold back

the renewable resources planning effort and a distinctive approach will give another important issue due emphasis. At some future point it may well be appropriate for the Forest Service to examine and explain potential relationships between public and private lands production potential.

Department of the Treasury

1. The Treasury states that more emphasis should be given to the relation between the policy model and estimation of potential forest acreage. It then goes on to discuss a specific methodology which includes determining what land rents or opportunity costs could be covered by some set of expected timber prices. As the report indicates, we do not support any particular model or method, but rather the development of an analytical capability to assess tax and other timber production incentives. There is, for example, a well known soil rent model in forest economics (the Faustmann model) which first specifies timber prices and then derives land rent. But there is also a large set of studies which suggest that timber land is held for several competing uses and that positive timber-based soil rents do not necessarily mean a landholder will make a timber investment. Thus, while the relationship between alternative policies and land owner timber production response is crucial, land rent computation may not be adequate to identify this relationship.

2. Treasury further states that "In principle, it makes no difference whether a subsidy to forestation is paid when the trees are planted, or when they are cut." This is true only under certain theoretical conditions. The key one is that the subsidy must be spent on the new stand of trees in both cases. A subsidy that is paid when the trees are harvested may or may not be used to establish a subsequent stand. A subsidy for establishing or planting a stand would be received only if the regeneration of the timber has taken place. If the subsidized forestation is a reasonable investment, yet individuals would prefer to spend the money or to invest it elsewhere, then the timing of the incentive can affect the number of acres regenerated. This must be borne in mind when assessing Treasury's views on the potential merits and demerits of "plowback" requirements for timber investment subsidies.

APPENDIX I

UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE
P.O. Box 2417
Washington, D.C. 20013

1420
OCT 6 1980

Mr. Henry Eschwege
Director, Community and
Economics Development Division
U.S. General Accounting Office
144 G Street
Washington, D.C. 20548

Dear Mr. Eschwege:

We have carefully reviewed the draft report entitled "A Means of Analysis Required for Policy Decisions Affecting Private Forestry Sector." Our staff also had a constructive discussion with Mr. John Hadd and Mr. Ian Hardie from the EMD Division of GAO.

We believe the intent of studying financial assistance and tax policy incentives and relating those to timber policy is good and in the public interest. However, the report should recommend that these matters be studied by an unbiased third party group. The Forest Service and Treasury could both furnish factual information from existing data. This approach would lend credibility and avoid potential criticism of the study because of perceived bias in the analysis by the Treasury or the Forest Service.

We have concluded that it would not be feasible and could well be inappropriate for the Forest Service to analyze or study tax policy and the performance or effect of tax policy on landowners and timber industry. Our decision is based on these factors:

1. Significant data critical to the suggested analysis is not readily available. A number of years in time and manpower would be required to develop and collect credible data which the Forest Service could utilize. This is a very complex area on which little data has been developed.

2. The Forest Service has a very limited number of personnel familiar with the tax field. Their time has been committed for a long period. The complexity of these issues involved with tax policy analysis reach beyond our organizational capability with present and projected staffing.

GAO Note: Page number references in this letter have been changed to correspond with the page numbers in this final report.

APPENDIX I

The report is a very helpful review of past and present efforts to stimulate forest management practices. With some reorganization, it could focus on the stimulation of investment, rather than the specifics of timber tax analysis or other various incentive programs. The issue is not wholly a tax policy issue but rather the consistency and relationships between timber policy and tax policy. You may wish to consider the enclosed suggested revision of the draft table of contents.

We feel that the Recommendation section should be broadened. For example, the Recommended Renewable Resources Program and the backup analysis material alerts the Congress that prompt action is needed to enhance our Nation's forest resources for future generations of Americans. The recommendations of this report, because of the nature of its background material, could support the RPA effort and the program that RPA expresses.

The report has several areas that should be corrected before it is completed in final form. These items are as follows:

1. Page ii of the digest and page 11 of the report list factors that might have led to increases in forest planting. These factors included population increases, movement to the suburbs, and the associated increased demand for new housing. We cannot understand how these factors positively influenced reforestation on non-industrial private forest lands and feel that they should be deleted.

2. Page 22 of the report states that the Forest Service reported that 124 million of the 278 million acres of the nonindustrial forest land had economic opportunities. What the Forest Service actually reported was that there were more economic opportunities on these lands than were currently being planned and that would yield 4 percent or more return beyond inflation.

3. Page 23 of the report calls for additional analysis because of differences in acreage estimates between Forest Service economic opportunities and the Forest Industries Council's "Forest Productivity Report." We believe further review by you will find both the Forest Industries Council and the Forest Service worked closely in the analysis stages in developing these estimates. What caused the difference in figures was the discount rate or social rate of interest that should be used for developing a program. Forest Industries Council used a 6 percent rate while the Forest Service used a 4 percent rate. What rate should be used is being discussed with OMB. The recently completed RPA documents reflect the use of 7 1/8 percent, with OMB consent. Each rate yields a different estimate on the appropriate forestry program for the United States.

4. Page 33 of the report states that "numerous" studies have stressed the problems with assistance programs being ill-defined and multiplicity of administering agencies. However, in your report this finding is based on one report by the Society of American Foresters and Resources for the Future (1977). As a minimum, you should change your finding in the digest from "numerous" to "one report". We also do not believe that this report adequately reflects current conditions. 1/

5. Page 24 states " - - - and GAO believes that non-biological factors, such as the mix of motivations among owners for owning forest land - - - should also be included in the criteria for determining nonindustrial acreage, etc.".

We are presently developing a landowner survey which should help with the development of these criteria with Duke University. The survey is also gathering information that would help us "target" the assistance program better, i.e., landowner attitudes, capabilities, and resources owned.

The GAO Report seems to imply that simply refining the potential acreage will help decide on needed programs. Our view is that the acreages involved will influence the size of the programs but not necessarily the type or direction of those programs.

We appreciate your consideration of our comments on the earlier draft report and the opportunity to review and comment on this report.

Sincerely,

Douglas Lewis

for R. MAX PETERSON
Chief

Enclosure

1/As indicated on pp. 33 and 34, while we discuss one study in particular, we do mean "numerous" studies. The study we discuss resulted from a workshop of numerous concerned individuals, and the study's conclusions represent a consensus of the attendees. We believe the findings and conclusions in our report are, in fact, current.

APPENDIX I

REVISED STUDY OUTLINE
(Forest Service Proposal)

1. Forests: America's Renewable Resource

   Introduction
   - Trends in timber supply
   - Timber price escalation
   - Impacts on public welfare

2. Adequacy of Investment in National Timber Production

   Estimates of economically productive land
   - Shortcomings of these estimates

   Knowledge of motivations of forest owners
   - Characteristics of owners
   - Financial and tax situations
   - Other uses of land or owner objectives

   Needs for new analytical tools and information

3. Alternative Public Policies and Programs

   Effects of alternate policies on investment decisions

   Evaluation of assistance and forest loan programs
   - Existing technical assistance
   - Existing cost-share assistance
   - Proposed forestry loan program

   Evaluation of Federal tax policies
   - Existing capital gains treatment
   - Proposed deduction for reforestation expenses
   - Estate tax changes

4. Conclusions, Recommendations, and Matters for Consideration by Congress

   Conclusions:

   - Improved analysis of renewable resource investment opportunities
   - Evaluations of alternative assistance and tax programs

   Recommendations to Secretaries of Agriculture and Treasury
   - Impartial evaluation of alternatives

   Matters for consideration of Congress

APPENDIX I

DEPARTMENT OF THE TREASURY
WASHINGTON, D.C. 20220

ASSISTANT SECRETARY

OCT 09 1980

Dear Mr. Anderson:

This is in response to your letter of September 10 forwarding for review copies of a Draft Report, "New Means of Analysis Required for Policy Decisions Affecting Private Forestry Sector." As you have noted, this is a revision of an earlier draft report and incorporates our principal comments thereon. We are therefore in accord with the recommendations that a framework, or model, for forestry policy analysis be developed and that it be used to evaluate both existing and proposed private forestry assistance programs. The Treasury would be pleased to participate with the Department of Agriculture in the development of such a policy model and its application to an evaluation of tax-based subsidy programs.

Our comments on the revised draft are essentially editorial:

(a) The discussion of the 1944 legislation (Chapter 2) is not consistent with the statement on p. iii that tax policies which provide forestry investors preferential treatment should be distinguished from tax policies that apply to all private sector investors alike. The "ordinary income"-"capital gains" tension from which forestry investors were relieved in 1944 exists in all private sector activities characterized as developmental or innovative.

(b) More emphasis should be given to the relation between the policy model and estimation of potential forest acreage. "Timber supply" functions are an integral part of the policy model. But timber supply is a function of land, technology, and the expected price of timber. Thus, one aspect of model development will be the determination of what land rents, or land opportunity costs, could be covered by some set of expected timber prices, given a state of forestry technology and a normal after-tax rate of return to private capital. These land rents can then be used as a guide to estimate the acreage that could economically be devoted to forestry.

(c) The discussion of the "use" made of tax benefits paid timber-cutters is still potentially misleading. In principle, it makes no difference whether a subsidy to forestation is paid when the trees are planted, or when they are cut. In either case, the private return to the holder of growing trees, given the selling price of timber, is enhanced and, presumably, induces greater holdings. But, to maintain larger holdings of forested lands, more trees have to be

GAO Note: The page number references in this letter have been changed to correspond with the page numbers in this final report.

APPENDIX I

planted; and this is true whether the trees are planted by those persons who currently cut timber or by others. Unless the discussion is modified, the reader will be left the incorrect impression that a "plow-back" requirement for investment subsidies is both necessary and efficient.

I trust that you are as gratified as we by the constructive result of the exchange of views that has occurred during the review process.

Sincerely,

Donald C. Lubick
Assistant Secretary
(Tax Policy)

Mr. William J. Anderson
Director
General Accounting Division
General Accounting Office
Washington, D.C. 20548

(008290)

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