The National Agricultural Law Center

University of Arkansas
System Division of Agriculture
NatAgLaw@uark.edu • (479) 575-7646

An Agricultural Law Research Article

Improving the Efficiency of Federal Timber Sale Procedures: An Update

by

Dennis D. Muraoka and Richard B. Watson

Originally published in NATURAL RESOURCES JOURNAL
26 NAT. RESOURCES J. 69 (1986)

www.NationalAgLawCenter.org

DENNIS D. MURAOKA* and RICHARD B. WATSON**

Improving the Efficiency of Federal Timber Sale Procedures: An Update†

The 1970s were prosperous for the timber and wood products industries in the Pacific Northwest. In the 1980s, however, high interest rates and a major housing slowdown resulted in lumber and plywood prices which were far below those which had been expected by timber buyers. Many timber companies contracted with the federal government in the late 1970s and early 1980s to harvest timber from the national forests at prices which have turned out to be far above the current market price of timber. If the firms are forced to honor these contracts, many of the smaller companies (and some of the larger companies) would be forced into bankruptcy. In the October 1983 issue of the *Natural Resources Journal,*[1] an economic analysis of the procedures used by the Forest Service to sell timber from the national forests was presented and suggestions were offered on how these procedures might be made more efficient. Since that time, the Forest Service has implemented several major changes in its timber sale procedures and introduced many one-time measures to alleviate the current crisis. In this article the earlier work is updated by describing and analyzing the procedural changes that have been made by the Forest Service and Congress to address the sale default problem. Sale procedures that were employed in the 1970s are reviewed. The changes that have been made in these procedures in the 1980s are described. The revised procedures are examined to determine whether they achieve their desired effect and suggestions are offered for further improvements.

Forest Service Timber Sale Procedures: Old and New

The Forest Service has chosen not to harvest public timber itself, but to sell or transfer the rights to this timber to the private sector. In the 1970s, timber from the national forests was sold on essentially a "pay-as-cut" basis. The Forest Service auctioned the right to harvest a given stand. These auctions were conducted with competing firms submitting

*California State University, Long Beach
**University of California, Santa Barbara
†The authors would like to thank Walter J. Mead of the University of California, Santa Barbara for his helpful comments on an earlier version of this article.
1. Muraoka and Watson, *Improving the Efficiency of Federal Timber Sale Procedures*, 23 NAT. RES. J. 815 (1983).

bids expressed as dollar payments per thousand board feet of each species of timber to be removed from the forest. The relative magnitude of competing bids was determined by multiplying the firm's species bids by their respective appraised volumes and summing across all species. The winning bidder was the firm which submitted the highest total bid on this basis. This firm was required to harvest the stand within a time period specified in the sale prospectus, usually three to four years. Firms which failed to harvest the timber by the end of the contract were subject to penalties.[2]

When sale defaults became imminent on large numbers of contracts which had been issued in the late 1970s and early 1980s, the Forest Service and Congress took two types of actions. The first actions were designed to relieve the financial pressures on the firms that were bound by contracts that they now could not profitably honor. The second type of action was taken in an attempt to ensure that this situation would not occur again.

The first moves by the government involved several rounds of contract extensions which were followed by a contract "buy-out." Initial contract extensions were granted by the Forest Service in October of 1981 for up to two years.[3] On July 27, 1983, President Reagan authorized the extension of certain timber sale contracts issued between January 1, 1976 and January 1, 1982 for a period of up to five years without interest.[4]

Actions to aid financially troubled timber firms culminated with the Federal Timber Contract Payment Modification Act of 1984 (FTCPMA).[5] The FTCPMA allows distressed firms to buy-out up to 55 percent of their contracts to a maximum of 200 million board feet.[6] The buy-out only pertains to timber contracts acquired before January 1, 1982, and the buy-out cost depends upon the size of the potential losses facing the firm and the buy-out volume. For firms whose potential losses exceed 100 percent of their net book worth, the buy-out cost is $10 per thousand board feet (mbf). For firms whose losses are between 50 and 100 percent of their net book worth, the buy-out cost is 10 percent of the contract overbid or $10 per mbf, whichever is greater. For firms whose losses are less than 50 percent of their net book worth, the buy-out cost is the greater of $10 per mbf or a percentage of the contract overbid which varies with the buy-out volume as shown in Table 1.[7]

2. For a detailed description of pre-April 15, 1982 Forest Service timber sale procedures, see Muraoka and Watson, *Economic Issues in Federal Timber Sale Procedures*, FORESTLANDS: PUBLIC AND PRIVATE 201-24 (R. Deacon & M. B. Johnson eds. 1985).

3. Extension of Certain Timber Sale Contracts, 48 Fed. Reg. 54,812 (1983) (to be codified at 36 C.F.R. pt. 223).

4. *Id.*

5. 98 Stat. 2213; Federal Timber Contract Payment Modification Act, Pub. L. No. 98-478, 98 Stat. 2213 (1984) (to be codified at 16 U.S.C. §618).

6. Disposal of National Forest System Timber, 50 Fed. Reg. 488 (1985) (to be codified at 36 C.F.R. pt. 223).

7. *Id.* at 492.

TABLE 1. Timber Contract Buy-out Provisions

% of Net Worth	*Buy-out Cost*
Purchaser's aggregate loss exceeds 100% of net book worth	$10 per mbf
Purchaser's aggregate loss is between 50% and 100% of net book worth	$10 per mbf or 10% of contract overbid (whichever is greater)
Purchaser's aggregate loss is less than 50% of net book worth	
a. First 125 million board feet	$10 per mbf or 15% of contract overbid (whichever is greater)
b. next 25 million board feet (125 to 150 million board feet)	$10 per mbf or 20% of contract overbid (whichever is greater)
c. next 25 million board feet (150 to 175 million board feet)	$10 per mbf or 25% of contract overbid (whichever is greater)
d. next 25 million board feet (175 to 200 million board feet)	$10 per mbf or 30% of contract overbid (whichever is greater)

Political compromise ultimately produced legislation which is more favorable to smaller and more distressed firms as compared with larger companies with greater financial strength. For example, estimates indicate that Bohemia Company, with a net worth of $96 million, can buy-out timber contracts on which their potential losses amount to $75.8 million for only $2.0 million.[8] Similarly, Medford Corporation, with a net worth of $61 million, will be able to unburden itself of contracts which would result in potential losses of $58.5 million for a payment of $1.5 million.[9] Larger companies, like Weyerhaeuser with a net book worth of $3,260 million, also benefit from the legislation, but the savings are smaller.[10] According to estimates, Weyerhaeuser will be able to remove losses of $4.1 million for a total cost of $1.2 million.[11] Estimates of the total cost to the United States Treasury as a result of this timber buy-out vary. David Stockman testified before Congress that the legislation will cost the Treasury $400 million, while in-house congressional analysts estimated the cost at $1 billion,[12] and *Random Lengths*, a lumber and plywood industry

8. Wiegner, *The Great Timber Bailout of 1984*, 134 FORBES, 162,162-65 (1984).
9. *Id.*
10. *Id.*
11. *Id.*
12. *Id.*

newsletter, estimates that "[t]he law will benefit 30 companies with the largest volume of contracts by about $1.3 billion."[13]

The second type of action taken by Congress and the Forest Service is intended to prevent the speculative bidding that occurred in the late 1970s and early 1980s from happening again. The first such changes, which became effective for sales issued after April 15, 1982, required a small down payment for each sale. Initially the down payment was set at 5 percent of the total value of the sale,[14] but more recently this has been increased to 10 percent.[15] In either case, the payment was due thirty days after the high bidder had been notified of the apparent winning bid,[16] and could be used for stumpage payments after 25 percent of the appraised volume had been presented for scaling.[17]

Payments for contracts of longer than three years' duration were accelerated by requiring an additional payment by about the midpoint of the contract. The required payment was the larger of (a) 50 percent of the bid premium (the bid premium is the amount by which the winning bid exceeds the appraised value), or (b) 25 percent of the anticipated contract price.[18] Additionally, a test program was implemented in selected forests which granted discounts for timber harvested before the last year of a sale contract. The discount was calculated as a percentage of a specified government borrowing rate, but could never exceed 25 percent. The earlier the harvest, the larger the discount (see Table 2 for details).[19]

Congress has further altered timber sale procedures with the FTCPMA. Under proposed new rules issued by the Forest Service for sales issued

TABLE 2. Discounts for Early Harvest.

Month Prior to Contract Termination	*Percentage of Government Borrowing Rate Taken as Discount*
12 to 24 months	50 percent
24 to 36 months	100 percent
36 to 48 months	150 percent
48 to 60 months	200 percent

Note: The maximum allowable discount is 25 percent of the bid price.

13. Tharp, *Law Allowing Timber Contract Buy-outs May Help Many Pacific Northwest Mills*, Wall St. J., Oct. 24, 1984, at 42, col.3.
14. New National Forest Timber Sale Procedures: Final Policy, 47 Fed. Reg. 16, 178 (1982) (to be codified at 36 C.F.R. pt. 223).
15. National Forest Timber Sales: Changes in Required Cash Deposit, 48 Fed. Reg. 48,661 (1983) (to be codified at 30 C.F.R. pt. 223).
16. New National Forest, *supra* note 14.
17. *Id.*
18. *Id.* at 16,179.
19. *Id.* at 16,181

after January 1, 1985, the down payment will be required at the time the contract is awarded rather than thirty days after the notification of the apparent high bid.[20] The amount of the down payment may vary from 10 to 20 percent of the total bid value. In general, the down payment will be set at 10 percent. However, if the average bid premium exceeds (a) $25 per mbf and (b) 50 percent of the average advertised rate, the down payment will be increased to 15 percent. (The average bid premium is found by taking the difference between the average advertised rate and the rate determined by dividing the total bid value by the total estimated volume in the sale.) A down payment of 20 percent of the total bid value will be required of those sales for which the average bid premium exceeds (a) $50 per mbf and (b) 100 percent of the average advertised rate.[21]

In addition to changing the down payment policy, the FTCPMA also modified the requirement of a midpoint payment on longer sales by mandating periodic payments on all sales. A payment will be required each whole operating season (after the completion of any required road construction) and will be due sixty days after the end of the normal operating season. These annual payments are calculated as a percentage of total bid value less the down payment as shown in Table 3.[22] For example, suppose that a sale was conducted on February 4, 1985 with a termination date of March 31, 1989. The sale prospectus requires that a road be constructed by November 15, 1985, and the normal operating season for this sale is May 15 to November 15 each year. Further suppose that the total bid value of the sale is $1 million and that the required down payment is 10 percent of this value or $100,000. In this case three periodic payments would be required, one for each operating season after the road completion date (these seasons are 1986, 1987, and 1988). The periodic payments are due on January 15 of 1987, 1988 and 1989 respectively (because January 15 is sixty days after November 15).

TABLE 3. Periodic Payment Schedule (percent of total periodic payment required)

Number of Periodic Payments	*Payment Period*				
	No. 1	*No. 2*	*No. 3*	*No. 4*	*No. 5*
1	100				
2	40	60			
3	30	30	40		
4	20	20	30	30	
5	15	20	20	20	25

Source: Implementation of Periodic Payments, *supra* note 20.

20. Implementation of Periodic Payments and Cash Down-Payment Requirements on National Forest Timber Sales, 50 Fed. Reg. 2,591 (1985) (to be codified at 36 C.F.R. pt. 223).

21 *Id.* at 2,592.

22. *Id.*

The first two payments are each $270,000 (30 percent of $900,000) and the third payment is $360,000 (40 percent of $900,000) based upon the percentages found in Table 3. The sum total of three payments is $900,000 which, when taken with the $100,000 down payment, is equal to the total bid value.[23]

Lastly, the FTCPMA requires the Secretary of Agriculture to "monitor bidding patterns on timber sale contracts and take action to discourage bidding at such a rate as would indicate that the bidder, if awarded the contract, would be unable to perform the obligations as required, or that the bid is otherwise for the purpose of speculation." [24]

Analysis of the New Timber Sales Procedures and Recommendations

In the earlier article, potential inefficiencies were identified that occur when log scale payments are made at the time of harvest.[25] These included difficulties in identifying the true high bidder for a sale and undesirable distortions in harvest timing and production decisions. Additionally, it was suggested that

> payment to the government at harvest can result in aggressive bidding on the part of interested buyers . . . When carried to an extreme, however, it can lead to excessive sale defaults. Under traditional sale procedures, the speculative buyer could bid aggressively, since relatively little payment is required until the harvest begins. If financial conditions meet with, or exceed, the firm's expectations, the sale is harvested. Otherwise, the firm defaults the sale or may even seek the protection of bankruptcy laws.[26]

Unfortunately, aggressive, speculative bidding has become a severe problem.

The government has chosen to help the industry through the crisis. Much has been written about the wisdom of the government coming to the aid of a distressed firm or industry and we have little to add to this debate. What is clear is that although a small firm that makes an error in judgement leading to financial ruin cannot expect to be assisted by the government, very large firms, such as Lockheed or Chrysler, or an entire industry, can expect government aid if they get into severe financial trouble. Although we have no evidence to support our contention, it is our belief that the timber industry was aware of this phenomenon which greatly reduces the total downside risk of speculative bidding. Since large

---

23. *Id.*

24. Federal Timber Contract Modification Act. Pub. L. No. 98-478, 98 Stat. 2213(c) (to be codified at 16 U.S.C. §618).

25. Log scale payments are payments for stumpage made as the timber is removed from the forest. The payment rate per mbf is established at the sale auction.

26. Muraoka & Watson, *supra* note 1, at 818-19.

numbers of firms were engaged in the speculative bidding, it was unlikely that the government would allow vast numbers of firms to go bankrupt.

Why did contract extensions and buy-outs become necessary? One theory is that high interest rates and the housing slump in the early 1980s are the causes. Although it is true that high interest rates contributed to industry problems, faulty sale procedures are as much to blame for industry problems as problems in the macroeconomy. Congress and the Forest Service have taken steps to prevent a similar episode from occurring in the future. The focus of these policies has been to require earlier payment for public timber including down payments ranging from 10 to 20 percent and subsequent periodic payments. Although accelerating stumpage payments is a proper solution to the speculation problem, the Forest Service has not gone far enough in this direction. Lump sum bidding with 100 percent payment at the time the sale contract is awarded is recommended.

As we demonstrated in the earlier article, this policy would have many advantages. Problems of inefficient production decisions and harvest timing decisions would be avoided,[27] as well as problems in identifying the true high bidder at the auction.[28] In addition, the problems of speculation and the costs of administering the timber sale program would be greatly reduced because the need for timber scaling is eliminated. It is noteworthy that the FTCPMA requires the Forest Service to monitor sales to prevent speculation in the future. A lump sum payment policy would do this with lower administrative costs.

The principal criticism of such a policy is the possible detrimental effects that it could have on the competitive position of small firms because of the required cash payment when the contract is awarded. However, such a system has been successfully employed for over thirty years to issue Outer Continental Shelf oil and gas leases.[29]

In summary, although the Forest Service should be commended for accelerating stumpage payment, it has stopped short of the ultimate solution to the problem. If the procedures were further modified to require a 100 percent cash payment at the date of the sale, the problem of speculation would be solved at a much lower cost along with several other significant inefficiencies which recent changes have failed to address. For example, bidding is still conducted on a species by species basis, and Forest Service employees must still scale harvested logs to

27. For details on inefficient production decisions that result from log scale payment at the time of harvest, see *id.* at 821-22. For details of inefficient timing decisions, see Muraoka & Watson, Forest Service Timber Sale Procedures: A Conflict of Public and Private Incentives (July 1984) (paper presented at Western Economic Association meeting, Las Vegas, Nevada).

28. Muraoka & Watson, *supra* note 1, at 819-20.

29. *Id.* at 822-24.

compute payment obligations. Log scale payment procedures continue to create incentives which distort harvest decisions. The latest round of procedural changes make no attempt to eliminate these problems. The events of the last several years have not altered earlier recommendations. Bidding on a lump sum cash basis with payment at the time the sale is awarded is still recommended.