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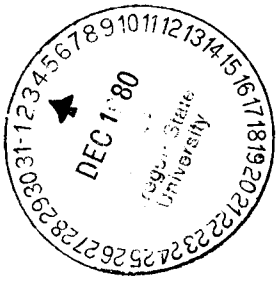

Studies in Management and Accounting for the

FOREST PRODUCTS INDUSTRIES

Accounting Treatment for Wood Products Futures Trading Activities

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ACCOUNTING TREATMENT FOR WOOD PRODUCTS FUTURES TRADING ACTIVITIES

CONTENTS

Monograph No. 7, published in July 1978, described a reporting and control technique for use in dealing with wood products futures trading activities. The monograph did not, however, recommend an accounting treatment for the transactions. In this monograph, we set forth our recommendations on proper accounting treamtent for transactions encountered in futures trading within the wood products industry. It may be helpful for the reader to review Monograph No. 7, as some of the material here, and most of the examples, are taken from that work. In addition to those transactions, we also cover here some special accounting and reporting problems that were not in the original paper.

As some terms used in this monograph may have meanings or definitions which vary slightly from those with which the reader is familiar, a review of the Glossary section prior to reading this Monograph may be helpful.

The practices and policies recommended in this monograph represent the independent research and conclusions of the authors, and do not necessarily represent the views of the company for which we work.

This is Monograph No. 12, published in October 1980.

SECTION I
INTRODUCTION

In managing and accounting for wood products futures activities, it is extremely important to have accounting records and management reports that clearly and accurately portray the way in which the activity is actually performing. We feel that the approach recommended in this Monograph for recognizing income and expense and for matching revenue with cost is sound and meets the test of conservative accounting principles. Accounting is dynamic in nature, and as the professional standards state, "Principles change in response to changes in economic and social conditions, to new knowledge and technology and to demands by users for more servicable information."[1] We believe that the accounting practices set forth here meet the test of reasonableness and all other standards by which they might be judged. We also believe that they more accurately depict events as they occur than might be the case with a less tailored accounting approach.

Accounting decisions on futures transactions must be made by people who have a thorough understanding of the activity. Without this understanding, decisions may be made which initially appear to reflect "proper accounting treatment," but which, on closer review, severely distort the substance of the transactions being reported.

In addition to reviewing this Monograph, we suggest that the futures accountant thoroughly study the many facets of futures trading in order to develop an understanding of the workings and intentions which underlie each type of transaction encountered.

The exact purpose of any futures trade is known first and in greatest detail by the trader, and it can be difficult for those charged with the accounting responsibility to track the many types of trades which may be executed simultaneously within a trading program. Since the accounting treatment will differ based on the intent of each transaction, it is imperative that the accountant establish a foolproof method for determining what activity is occurring and for what purpose. To this end, the reader is referred to the first monograph in this series, "A Reporting and Control System for Wood Products Futures Trading Activities."[2]

Hedges, spreads, basis trades, and speculative positions are frequently intermixed in a trading program. The time horizon on different trades can vary from just a few hours to many months. Offsetting positions for a trade can range from none at all to controlled production of the commodity at some specified future time, to the physical presence of the commodity stored at a warehouse, to the ownership of certificates to counterbalance an open futures contract. As a result, the accounting treatment for each transaction will vary, as do the details which underlie each trade.

This paper deals with the accounting and reporting practices arising from the plywood futures contract. Because of the existence of plywood certificates, an item that does not exist in the dimension lumber or stud futures contract, this is a more involved and a more complex instrument than the other two. However, the principles which we seek to establish can be applied equally well to all contracts traded in conjunction with the wood products industry.

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[1] Professional Standards, Vol. 3, Sec. 1022, Para. 24.

[2] Monograph No. 7, "A Reporting and Control System for Wood Products Futures Trading Activities," by W. A. Pass and G. L. McKee, Oregon State University, July 1978.

SECTION II
TYPES AND TREATMENTS OF TRANSACTIONS

A. CONTRACTS

What is a contract? In a legal and accounting sense, a contract is a binding agreement with the following elements:

- Genuine assent
- A lawful purpose
- Competent parties
- A form required by law
- Consideration

In referring to a futures contract, a futures trader is referring to a trade agreement to deliver or receive a specified quantity and grade of a product under conditions established when the trade was executed. What is being traded is the future commitment to deliver or receive the commodity at a price and time which is agreed to between the parties. At the time a futures trade is executed by the broker, there is an agreement which meets all the elements required of a contract. There is genuine assent between competent parties, with consideration, for a lawful purpose, and in a form required by law. Therefore, for accounting and reporting purposes, a futures contract should be accounted for and treated as a contract.

For a typical futures contract, both buyer and seller are liable to perform according to the terms that were previously agreed upon. In addition, both put forward a security deposit, referred to as the initial margin, and either pay or receive each day's change in value of their overall position as the price of the contracts rise or fall. These secondary payments are frequently referred to as maintenance margin, and the total of such payments constitutes the cumulative gain or loss on the position; we will refer to it as the position's (or in total, the trader's) open equity.

During the life of any contract, there are many such payments, as well as other gains, losses, and changes of status. Each action or change requires some accounting entry, which will vary with the intent of the transaction.

Because treatment of varying trades differs considerably, we present here the suggested means of accounting for each type of transaction with a simplified example. Later, the reader will have the opportunity to view a month's activity and the recommended accounting treatment for each transaction.

1. Speculative Positions

Although most frequently the realm of the noncommercial trader, speculative positions are the most straightforward of futures transactions. Here, contracts are traded with the uncomplicated intent of earning profits from outguessing future price movement. Speculative contracts cannot be distinguished by size of the position or by duration of the trade. Rather, they stand alone, not tied to either offsetting production, other contracts, wood in storage, or offsetting certificates.

In a speculative transaction, profits or losses must be recognized in the current accounting period. As stated in APB No. 28, "Gains or losses that arise in any interim period similar to those that would not be deferred at year-end should not be deferred to later interim periods within the same fiscal year."[1] Any alternative to this approach, where gains or losses on these one-sided transactions are not immediately surfaced and recognized, introduces a substantial risk of permitting the subjective determination of when the reality of the results of the trade are faced. In a speculative transaction, where there are no offsetting positions that balance out or compensate for the results of the futures position, this cannot be allowed.

As an example, assume a plywood contract is sold at $194/MSF. The final price of the contract on the day it is placed is $197/MSF. The following cash transactions occur and should be accounted for in the following manner:

Cash Transactions

Initial margin sent to broker	$400
Maintenance margin sent to broker (76/MSF x $3/MSF)[2]	$228

Accounting Transactions

	Debit	Credit
Cash	$	$628
Futures deposit	400	
Futures income	228	

[1] APB No. 28, Para. 15(d).

[2] In actuality, a car of contract grade plywood contains 76,032 sq. ft. of plywood, and all cash market transactions are computed on this basis. For simplicity, the Chicago Board of Trade uses 76.0 MSF/contract in computing futures gains or losses. However, for certificate transactions, the CBT uses the actual 76,032 sq. ft. volume.

The reader will note that income is posted continuously and is not delayed until the contract is closed. As further gains or losses occur, they are posted directly to income, as in the above example. When the trade is closed, the initial margin is returned in full and the margin entry is reversed. Commissions are charged by the broker and are booked to income.

2. Hedged Positions

Probably the most common transaction for the commercial participant is the hedge of future production or of future requirements. Short hedges, initiated by producers, involve the sale of future production into the futures market at prices which are more attractive than those which the seller expects to occur during the period in which the hedged production becomes marketable through regular cash channels. Long hedges, conversely, are purchases of future requirements by a user at prices which he considers attractive for that period. In either case, the purpose is to lock in an acceptable price today for a transaction which will occur several months in the future.

Although the trader may be seeking long-term price protection, and these trades are generally of longer duration, time alone is not an indication of the type of trade that is in place. Hedges may remain in effect until the contract matures, or they may be lifted prior to maturity.

In reality, hedges are simply purchase or sales commitments for a future time period at a price which will assist in meeting management's profit goals. It is no less than a firm market order which might, except for liquidity, be placed in the cash market.

For a moment, examine a parallel transaction that occasionally occurs in the industry. Assume a manufacturer sells his production to a customer at a fixed price for delivery and payment six months from now. There is nothing of great note about the transaction; it is handled in the financial records as any other event in the normal course of business. As long as there is an expectation of a reasonable profit (i.e., sales price exceeds cost), the transaction proceeds as any other, and the financial impact is fully realized at the time the wood is delivered.

A futures hedge matches this example very closely. It has a specific objective—that of improving the sales return of a product (or cost of raw material for a long hedge) at some future time. Following the open order concept, random moves of the futures market should not be booked into profit or loss. Instead, like the order, a profit or loss should be recorded at the time the contract is terminated. Once the contract is closed, the gain or loss is recognized and booked—but not before that point.

Additional information on deferring gains or losses on hedge transactions can be found in paragraph 27 of FASB Statement No. 8 (Section 1083.027) "Accounting for the Translation of Foreign Currency Transactions and Foreign Currency Financial Statements."

This section specifies conditions that must be met to defer a gain or loss on a forward exchange contract. The relevant provisions, along with the comparable elements of a proper futures hedge, are listed below. Some interpretation is required, as the viewpoint of FASB No. 8 pertains to a long hedger, while ours is that of the producer or short hedger :

> " . . . a forward contract shall be considered a hedge of an identifiable foreign currency commitment . . ., provided all the following conditions are met . . ."

FASB No. 8 Foreign Currency	Comparable Wood Products Futures Trade
(a) The life of the forward contract extends from the foreign currency commitment date to the anticipated transaction date . . . or a later date.	(a) The life of the hedge contract extends from the transaction date to the hedged commitment date, at which time the hedged product is available for sale.
(b) The forward contract is denominated in the same currency as the foreign currency commitment, and for an amount that is the same as or less than the amount of the foreign currency commitment.	(b) The hedged contract is for the same product as that product to be hedged, and the hedged volume is equal to or less than that volume which the hedger (producer) will develop.
(c) The foreign currency commitment is firm and uncancellable.	(c) Hedged production will be developed in hedger's ordinary course of business and must be sold as a normal event.

The Board concluded in this Statement (Paragraph 207) that, when these conditions were met, the effect of rate (price) changes in the hedge are included in the dollar basis of the transaction. The same is true with commodity hedges. When the commodity hedge becomes closely identified with the related inventory or production, the effect of the hedge and the ultimate hedged transaction are inseparable, and gains or losses resulting from market movements on these transactions can and should be deferred until the transaction is complete. To do otherwise would be to over- or understate income and to artifically transfer it from one accounting period to the next.

As an example of the recommended treatment, examine the following trade:

Day	Event	Cash Transaction
1	Sold 10 hedge contracts at $195/MSF.	Sent broker $4,000 for deposits (10 x $400/contract = $4,000).
2	Market price moves to $200/MSF.	Sent broker $3,800 maintenance margin ($5/MSF x 76 MSF/contract x 10 contracts = $3,800).
3	Market price moves to $207/MSF.	Sent broker $5,320 maintenance margin ($7/MSF x 76MSF/contract x 10 contracts = $5,320).
4	Market price moves to $201/MSF.	Received from broker $4,560 maintenance margin ($6/MSF x 76MSF/ contract x 10 contracts = $4,560).
5	Hedge lifted at $194/ MSF.	Received from broker $5,320 maintenance margin ($7/MSF x 76MSF/contract x 10 contracts = $5,320). Received $4,000 deposits returned from broker. Paid broker commissions of $300 (10 contracts x $30 each = $300).

The accounting treatment would show the following results:

Accounting Treatment

Day	Description	Debit	Credit
1	Sale of 10 hedge contracts		
	Futures deposit	$4,000	
	Cash		$4,000
2	Maintenance margin paid on 10 contracts		
	Deferred gain	$3,800	
	Cash		$3,800
3	Maintenance margin paid on 10 contracts		
	Deferred gain	$5,320	
	Cash		$5,320
4	Maintenance margin received on 10 contracts		
	Cash	$4,560	
	Deferred gain		$4,560
5	To close out 10 hedge contracts and record to income		
	Cash	$9,020	
	Futures income (broker's commission)	300	
	Deferred gain (to close to income)	760	
	Futures income		$ 760
	Futures deposits		4,000
	Deferred gain		5,320

The $460 income equals one dollar per MSF profit on 10 hedge contracts, less $300 broker commissions.

B. SPREAD CONTRACTS

A spread is a transaction in which the trader purchases and sells offsetting contracts in different contract periods. This is done in an effort to outguess future price movements in the relative price levels of the contracts traded. Gains or losses are earned, not on absolute price movements, but rather on the change in the price spread between the several contracts involved in the trade.

The purpose of the spread is not inherently protective—rather, as with a speculative trade, it is to make profits from accurately calling the movements in prices of the contracts traded. Therefore, the spread should be accounted for in the same manner as a speculative transaction.

C. BASIS TRADES

Basis trades—the purchase of cash wood and resale of an offsetting quantity of the product into the futures market at a price spread which provides an attractive profit opportunity—are examples of trades that link together both the commodity and the contract even more closely than the hedge position.

In basis trading, the trader is attempting to profit from a price disparity which exists in the market. For example, this can occur where, because of enthusiasm about upcoming construction prospects, the futures market in contracts some months out is bid up to prices in excess of current cash market levels. This premium, or basis, can be large enough to provide an attractive profit opportunity after paying all handling costs and absorbing the expense of funds involved.

A simple example will help illustrate the transaction. On January 2, the cash market is $160/MSF and the July contract is $180/MSF. Seeing a potential profit of about $20/MSF per contract before expenses, the trader purchases 10 cars of cash wood; simultaneously, he sells 10 July contracts at $180/MSF. The wood is stored and the

Cash		Futures Deposits		Deferred Gain		Income	
$	$4,000	$4,000	$	$	$	$	$
	3,800			3,800			
	5,320			5,320			
4,560					4,560		
9,020			4,000	760	5,320	300	760
$ 460							$460

trader is billed for his purchases by the manufacturer. As contract maturity approaches, the basis shrinks, and finally the trade is terminated at a $3 basis—cash $220/MSF, futures $223/MSF.

Although the values for both cash and futures have moved over a wide range, both above and below the original level which existed when the trade was placed, these interim movements have no impact at all on the final economics of the transaction. Only the basis—that at the time of origination and that at termination—affects the eventual results of the trade. Profit on the trade is as follows:

	Futures Contract	Cash	Total
Sold Position	$ 180/MSF	$ 220/MSF	
Bought Position	223	160	
Profit/(Loss)	$(43)/MSF	$ 60/MSF	$17/MSF

The profit results from the original basis of $20, less the basis at termination of $3.

With basis trades, the contract is always supported with wood in inventory, and both parts of the basis trade, together, must be viewed as elements of one transaction. Gains or losses on the position is the result of what happens to both sides of the transaction. Generally, if futures prices increase, so does the value of the underlying commodity held as an offset. Likewise, futures price declines generally reflect reduced values of wood held in storage. In either case, loss in value on one element of the transaction is usually offset by value gained on the other.

Because of the two elements of basis trades, accounting for the profit or loss on these transactions must consider and match the profit or loss resulting from each side of the transaction. We recommend that profits or losses on positions be calculated monthly by marking the overall position to the market. If in aggregate, there is a loss in the total basis trade position, this loss should be recorded. The loss entry should be reversed at the first of the following month and the overall procedure repeated monthly. Final recognition of the gain or loss on an individual transaction will occur only when the transaction is complete. Aside from this, the daily stream of cash receipts and payments are booked to their respective categories.

The procedure of marking to the market and recording overall losses monthly will ensure two things. First, any loss on the overall position is surfaced and recorded, thus preserving the essential conservative nature of the accounting records. Second, by reversing the mark to the market entry at the first of each ensuing month, the total of each month's entries will reflect the total change in the basis trade during the month reported. This approach records only losses on basis trades from the price levels in effect when the trades were placed. It should not record gains until the time at which the individual trade is lifted.

Basis trade accounting appears to challenge the accounting rule of valuing inventories at the lower of cost or market. However, APB No. 43, Statement Six, states the following:

> "Judgment must always be exercised and no loss should be recognized unless the evidence indicates clearly that a loss has been sustained."

The suggested treatment is consistent with APB 43.

Now, let's proceed through a hypothetical example to see how the accounting treatment actually deals with all aspects of a basis trade transaction.

Day	Event	Cash Transaction
2/01.	Ten cars of wood are purchased at $160/MSF. Payment made is $121,651.20. Ten July contracts are sold at $180/MSF.	$121,651.20
	Initial deposit made of $4,000.00.	$ 4,000.00
2/28. (month end)	Prevailing values:	
	Cash wood $150/MSF	
	July futures $165/MSF	
	Position is marked to the market:	
	Loss on cash wood [10 x ($150-$160) x 76.032]	$(7,603.20)
	Gain on futures [10 x ($180-$165) x 76.0]	11,400.00
	Net gain (loss)	$ 3,796.80
	No loss was incurred; therefore, no accounting entry is made.	
	Maintenance margin payments have been received throughout the month, amounting to $11,400.00 [10 x ($180-$165) x 76.0].	$ 11,400.00
	These are recorded together on this day for simplicity.	
3/30. (month-end)	Prevailing values:	
	Cash wood $135/MSF	
	July futures $160/MSF	

Day	Event	Cash Transaction
	Position is marked to the market:	
	Loss on cash wood [10 x ($135-$160) x 76.032]	$(19,008.00)
	Gain on futures [10 x ($180-$160) x 76.0]	15,200.00
	Net gain (loss)	$(3,808.00)
	The loss on the aggregate position is booked to income and the credit is shown as a write-down of basis trade wood in inventory.	
	Maintenance margins have been received of $3,800 [10 x ($165-$160) x 76.0], which is recorded together on this day for simplicity.	$ 3,800.00
4/01.	The booked income entry, resulting from losses on the aggregate open basis trade position is reversed.	
4/30.	Prevailing values:	
	Cash wood $220/MSF	
	July futures $223/MSF	
	Position is lifted by selling the cash wood and repurchasing the July futures contract.	
	Cash received on sale of wood [10 cars x $220/MSF x 76.032MSF/each]	$167,270.40
	Loss on futures trade [10 x ($180-$223) x 76.0]	$(32,680.00)
	Payment of maintenance margins to broker since April 1 [10 x ($160-$223) x 76.0]	$ 47,880.00
	Return of initial margin from broker	$ 4,000.00
	Broker commissions [10 contracts x $30/contract]	$ 300.00

These transactions flow through smoothly to the individual accounts.

D. CERTIFICATE TRANSACTIONS

It is important to differentiate between the two types of certificate transactions. The first, in which certificates are supported by wood in storage, is generally the result of basis trades where the trade has not been completed by the time the contract matures. In this type of contract, the supporting wood remains and the certificate is issued to replace the short futures contract .The transaction results in considerable accounting entries, but essentially no change occurs in the basics of the transaction.

In the second type of contract, certificates are issued for a variety of reasons, but in each case, there is no wood stored to offset the liability of the outstanding certificate. The risks, the conditions surrounding issuance of the instrument, and the eventual retirement of the certificates used in this type of transaction are all considerably different from those in the supported certificate. In accounting for each type of certificate transaction, the accountant must be fully aware of which type of transaction he is recording.

1. Supported Certificates

Supported certificates normally result from basis trades that have not been completed by contract maturity and present straightforward arrangements with lengthy but clearcut guidelines. Here, the supporting wood must be the contract grade, fully shippable against the certificate. There is no opportunity for the component values—wood and certificate—to go in different ways, altering the profit or loss picture which originally existed. The reason for this is that wood and certificate are

	Cash		Inventory Basis Trade Wood		Futures Deposit		Deferred Gain		Income	
	$	$	$	$	$	$	$	$	$	$
2/01		121,651	121,651							
2/01		4,000			4,000					
2/28	11,400							11,400		
3/30	3,800							3,800		
3/30				3,808					3,808	
4/01			3,808							3,808
4/30	167,270			121,651						45,619
		47,880					15,200		32,680	
		300							300	
	4,000					4,000				
	$12,639									$12,639

essentially interchangeable. The accounting treatments for issuing certificates are quite different from, and more simple than, those for retiring certificates. Retirement can come in one of several forms:

1. The certificate is called by its owner, and the issuer ships the wood which had been held in storage as an offset.
2. The issuer buys back his certificate, and simultaneously sells and ships the offsetting stored wood. The purchased certificate is canceled, reducing the issuer's exposure and liability to perform.
3. The issuer purchases a certificate and sells the wood which is being held in offset. However, upon receipt of the certificate, he finds it is not one of his. He therefore holds the certificate received in place of the offsetting wood which has now been shipped. When the issuer's certificate is eventually called, the issuer passes that demand through to the organization whose certificate he holds. This pass-through essentially transfers the primary issuer's liability to perform to the secondary issuer. When this is done, the primary certificate is canceled, removing with it the issuer's liability.

Once a certificate is issued and wood is placed in storage, the relative prices of wood versus futures contract are no longer a concern to the accountant. At that point, regardless of future price direction and as long as wood remains to back up the certificate, there are no further entries to the accounts until the certificate is retired. The final entries are made when the trade is completed and the records are closed by one of the methods discussed previously.

Issuance of Certificates

	Cash		Futures Deposit		Inventory		Deferred Gain		Supported Certificates		Income	
	$	$	$	$	$	$	$	$	$	$	$	$
2/01		121,651			121,651							
		4,000	4,000									
7/15		30,400					30,400					
	4,000			4,000								
		300										300
	167,270									167,270		
								30,400	30,400			
	$14,919				$121,651					$136,870		$300

Redemption of Certificates by Call & Shipment of Wood
Case A & B

	Cash		Inventory		Supported Certificates		Income	
	$	$	$	$	$	$	$	$
	14,919		121,651			136,870	300	
				121,651	136,870			15,219
8/15	$14,919							$14,919

Following is an example of the accounting for certificates.

Day	Transaction
2/01	Ten cars of wood purchased at $160/MSF. Ten July contracts sold at $180/MSF. Payment is made for purchased wood of $121,651.20 (10 x $160/MSF x 76.032MSF/Car). Initial deposits of $4,000.00 are sent to the broker (10 x $400).
7/15	Prevailing values: Cash wood $210/MSF July futures $220/MSF Contract is terminated by instructing broker to register and issue 10 certificates against the July short positions at $180/MSF. Total maintenance margin paid to broker during the 5-1/2 month contract life is: 10 contracts x [$180-$220 per MSF] x 76.0 MSF/contract = $(30,400) Broker returns initial deposits of $4,000. Commissions are paid to broker of $300. Ten certificates are issued. Cash received: 10 certificates x $220/MSF x 76.032 MSF/certificate = $167,270.40 Loss on futures contracts: 10 contracts x [$180-$220/MSF] x 76.0 MSF/contract = $(30,400)

When all these entries are complete, the accounts properly reflect the issuance of the 10 supported certificates.

Note that the loss incurred on the position which gave rise to the certificates is combined in the supported certificate account. This adjusts the book value of the supported certificates so that it equals the price at which those contracts were originally sold.

Following are examples of the three methods of retiring the certificates described earlier:

a. *Redemption by Callout and Shipment*

On August 15, the issuer's 10 certificates are called. He immediately ships the 10 cars of wood in storage. All accounts are cleared, as follows:

	Debit	Credit
Supported certificates	$136,870.40	$
Stored wood		121,651.20
Profit		15,219.20

b. *Redemption by Shipment, Repurchase and Cancellation*

The accounting treatment is the same as in the prior example; only the details of completing the trade vary.

c. *Redemption by Shipment, Repurchase of Offsetting Certificate, and Later Pass-Through*

On August 15, 10 certificates are purchased at $240/MSF and the 10 cars of cash wood are sold for the same price. When the certificates are received, they are found not to have been those put out by this company. The certificates are held until September 15, at which time the company's certificates are called for shipment. In response, the company passes on the loading instructions to the issuer of the certificates he holds.

8/15	Bought 10 certificates at $240/MSF. Cash out is $182,476.80 (10 certificates x $240/MSF x 76.032 MSF). Sold 10 cars of wood at $240/MSF, receiving $182,476.80 (10 cars x $240/MSF x 76.032 MSF).

Redemption by Shipment of Wood, Repurchase of Offsetting Certificates for Later Pass/Through

Case C

	Cash		Certificates Owned		Inventory		Supported Certificates		Income	
	$	$	$	$	$	$	$	$	$	$
Bal. Fwd.	14,919				121,651			136,870	300	
8/15-Repur.		182,476	182,476							
Wood Sale	182,476			45,606		121,651				15,219
9/15 Pass Thru				136,870			$136,870			
	$ 14,919									$14,919

Note that the transaction is treated as complete, and profits are recognized at the time the wood is sold and the new certificates are purchased. At that point, the value of certificates owned is adjusted to exactly balance the value of supported certificates. Then, when the supported certificates are called, the owned certificates exactly match the liability of the supported certificates, and the remaining entries are finalized and the accounts are closed.

2. Unsupported Certificates

Unsupported certificates are probably more misunderstood by the beginning commercial trader and by commodities brokers than any other trade. Misunderstanding is widespread on the nature of the obligations which exist when certificates are outstanding which are not supported by wood in storage or by other certificates.

Quite simply, the unsupported certificate is an outright speculative position. It is generally created by either the issuer's refusal to recognize losses on a position at the time the contract matures, or as a means to fulfill an issuer's objective of raising cash. In either case, the position and its liability are created, while the timing of redemption of the certificates is quite beyond control of the issuer. As a result, it certainly fails to qualify as a hedge. The issuer of the certificate locks in a price that he will receive for future production, but the timing at which that production will be called is indeterminable and totally beyond the control of the issuer. This situation occurs because the time of redemption is selected by the owner of the certificate. The issuer can cover his liability, but until that is done, the liability can be called out on any three-day notice. At the time the certificate is called, the issuer is required to perform regardless of whether circumstances are favorable or unfavorable to his position.

In addition to being a confusing instrument to use, the unsupported certificate has another feature which tends to conceal its inherent risks. When a futures contract is sold, the seller must pay to the broker on a daily basis an amount equal to any losses on the contract; of course, he also receives from the broker payment for any gains that his position earns. These payments, among other characteristics, require the trader, as well as the accountant, to be fully involved in accounting for the position. In the system proposed here, although the gain or loss on a hedge is deferred, it cannot be ignored as daily entries are required to account for the funds passing between trader and broker.

No such payments are required with certificates. Once issued, the certificate lies dormant until called by its owner. Since there are no periodic payments that require a review of the position, it is possible for a major loss to build with no outside factors that would require the loss to be brought to the attention of the issuing company. More than one organization has tried to delay facing a trading loss by issuing certificates. In every case with which we are familiar, that decision proved to be a costly one to the firms involved.

As a speculative position, losses or gains on unsupported certificates must be recognized on a periodic monthly basis. Since there is no cash receipt or payment occasioned by market movements which serve to continually remind the trader and the accountant of the profitability of the position, we suggest that certificates be marked to the market every month. Losses should be posted directly to the P&L account at month-end, and that entry should be reversed at the beginning of the following month, as is the case with the basis trade.

By recognizing a certificate loss in the period it occurs, the trader has no vested interest in holding the certificate longer than justified. By not recognizing the loss when it occurs, the loss may continue to grow, and the trader may feel forced to take unproductive and unprofitable actions to protect the certificate from being called out and forcing him to recognize the loss.

The following is an example of the method we advocate:

7/01 Ten July contracts are sold at $165/MSF.

7/20 Position is closed by issuing 10 certificates. Price of July contract is $195/MSF.

Maintenance margins previously paid broker are $22,800:

[10 contracts x ($165/MSF - $195/MSF)]
[x 76.0 MSF/contract]

Trading loss that results when contracts are closed is $22,800:

[10 contracts x ($165/MSF - $195/MSF)]
[x 76.0 MSF/contract]

Commission charged by broker is $300.

Cash received for issuance of 10 certificates is $148,262.40:

(10 certificates x $195/MSF x 76.032 MSF/certificate)

7/31 September contract valued at $210/MSF. Marking certificates to the market yields a loss of $11,404.80:

[10 certificates x (195/MSF - $210/MSF)]
[x 76.032 MSF]

8/01 P&L entry is reversed.

8/15 Two certificates are repurchased and canceled at $210/MSF.
Cost of repurchased certificates is $31,933.44: (2 certificates x $210/MSF x 76.032 MSF).
This charge will reduce the unsupported certificate liability by 20 percent (2 of 10) of $148,262.40, or $29,652.48.

8/30 September contract valued at $190/MSF.
Marking certificates to the market yields $3,041.28 profit:
[8 certificates x ($195/MSF - $190/MSF)]
[x 76.032 MSF]
Since this is a profit and profits are not recognized until redemption of the certificates, no entry is made.

On all certificates, the issuer receives carrying costs currently established at $1.65/certificate per day. These revenues should be accrued monthly and used to offset storage costs of wood if the certificate is supported, or taken directly into income if the certificate is unsupported.

E. TREASURY BILL DEPOSITS

Treasury bills may be substituted for actual cash deposits with the broker. By using the T-bill, interest income can be earned on funds that are tied up and that otherwise would be incurring interest expense. The broker will credit the deposit account with the full face value of the T-bill. The actual cash that must be paid is the discounted amount of the T-bill. When the T-bill matures, the company will receive the face value of the T-bill; at that time the interest income should be recognized.

Date	Cash		Deferred Futures Gain		Unsupported Certificates		Futures Income	
	$	$	$	$	$	$	$	$
7-20		22,800	22,800					
				22,800				22,800
		300						300
	148,262.40					148,262.40		
7-31						11,404.80	11,404.80	
8-1					11,404.80			11,404.80
8-15		31,933.44			29,652.48		2,280.96	
8-30								
	$93,228.96					$118,609.92	$25,380.96	

SECTION III
FUTURES DEPARTMENT SALES OF WOOD

When the trader has built up a large supply of wood to support his trades and the time comes to close his positions, he must move a large quantity of wood into the cash market. This can be done by the futures trader or by plywood salespeople. In either case, the sale of this wood must be handled the same as any other sale; no shortcuts should be taken. All too often the futures wood is looked upon as a nuisance and the salespeople may not take the same degree of interest in the futures transactions as they do in plant sales. Therefore, special care must be taken to see that each futures car of wood sold goes through the normal channels of order taking, order checking, credit checks, invoicing, and accounts receivable. Since the futures department may not be in the market continuously, the overall procedures might be weak and special care must be taken to ensure proper treatment.

SECTION IV
AUDIT DEPARTMENT RESPONSIBILITIES

Both the internal and external auditors must have a full understanding of the futures market and futures accounting if they are to perform their review function properly. The guidelines that the corporation has set to control the futures trading activity must be documented and must clearly spell out the responsibilities of operating management, the trader, and the accounting department. These guidelines, established by the corporate board of directors, set the policies within which the trader must work, determine the types of trades that will be authorized, and the number of contracts that will be outstanding at any one time, and should grant authority to the functional executive to authorize designated individuals to trade. The guidelines must also establish a mechanism for selection of brokers to be used and should rule on whether personnel engaged in the futures activity should be allowed to trade for their own accounts, a step we strongly discourage.

Once policies are set, then operating management, the trader and the accountant, with assistance from the internal audit department, should set up accounting and control procedures. A well-documented operating and accounting procedures manual is a must. The procedures manual helps others within the organization develop a basic understanding of what is happening, facilitates training, and gives the auditors a reference document to follow.

When the internal audit department makes its unannounced audit of the futures department, it would have the procedures manual as a guide. As mentioned in Monograph No. 7, the audit department must have complete access to all records and computer systems used in the trading activity. The audit department should audit all aspects of the activity at least twice yearly and whenever there is a change of traders.

If the auditors have any concern about how the trader and the accountant are performing their duties, they should discuss these concerns with these individuals to make sure there are no misunderstandings. Futures trading is not completely understood by most people. With the prevailing fear that trading in the futures markets may lead to great losses, it takes only a few erroneous comments made by the audit department to severely and wrongly damage the activity. We feel it is extremely important that the operating people and the auditors work closely together to assure that the activity is following company policy.

If the futures department is not following all policies and procedures, then variances must be quickly surfaced. If a change in policy is needed, operating management must ask for and obtain it. The activity should not continue on in variance with established company policy.

SECTION V
MILL ACCOUNTING

The primary reason for trading in the futures market is to protect the buyer and/or seller from price fluctuations. However, it is our opinion that the futures department must be set up as a separate function from the production units. For the most part, mill operating people and mill salespeople look upon the futures activity with suspicion. They seldom recognize its benefit when the activity enhances their P&L statement, but are quick to criticize the activity if there is a perceived loss passed on to the mill. We have found that keeping the two functions completely separate has worked very well and has caused few problems. In an active hedging program, keeping the futures department separate requires a full understanding of the activity by management. Complete and accurate side records must be kept to measure and report the results of the activity. Using only the conventional P&L statement will not provide management with the information needed to measure the success or failure of the activity. The mill in all of its dealings with the futures department should treat it as it would another customer.

For all basis trades that the department makes where the supporting wood comes from a company plant, an invoice should be prepared charging the futures department the cash price of that wood. The wood then becomes the responsibility of the futures department. The mill books the sale as an intradivision or intracompany sale. The accounting department should compute the profit made on the sale to the futures department and make an entry on the divisions' or groups' books eliminating the profit on the intracompany sale. This elimination should not appear on either the mill's P&L or the futures department statement. It should only appear as a one-line entry on the division or group's P&L statement.

When the futures department makes the sale of the basis wood into the cash market, they should then record the sale as an outside sale and all sales reports should be generated based on futures department sales.

SECTION VI
EXAMPLES OF SUGGESTED TREATMENTS IN DAILY TRANSACTIONS

In order for the reader to understand the T accounts of the six weeks' activity which were first presented in Monograph No. 7, the following chronology should prove helpful. The short descriptions of what transpired during the trading day is followed by what has happened to the open equity account with the broker, the cash balance with the broker, and the accounting entry.

An in-depth explanation of open equity and margin calculations and the resulting cash transfers between trader and broker is presented in Monograph No. 7. The examples shown here, as well as the background for these examples, are presented in that Monograph.

12/15/76

Basis trades: Sold 5 January contracts at $194.00/MSF and 5 at $195/MSF. Purchased 10 cars of cash wood at $183.30 net to support the basis trade. Total dollar cost (10 x 76.032 x $183.30) = $139,366.66.

Open equity	0
Deposit required (10 x $400.00)	$(4,000.00)
Cash to broker	$(4,000.00)

Accounting entry:	Debit	Credit
Deposits	$ 4,000.00	
Inventory	139,366.66	
Cash		$143,366.66

12/16/76

Basis trades: Sold 5 January plywood contracts at $193.50/MSF. Purchased 5 cars of cash wood at $183.30 net to support basis trade. Total dollar cost (5 x 76.032 x $183.30) = $69,683.33.

Open equity	$ 1,216.00
Cash with broker	4,000.00
Deposit required (15 x $400.00)	(6,000.00)
Cash to broker	$(784.00)

Accounting entry:	Debit	Credit
Deposits	$ 2,000.00	
Inventory	69,683.33	
Deferred gain or loss[1]		$ 1,216.00
Cash		70,467.33

12/17/76

Basis trades: Sold 5 January contracts at $194.00 and 5 May contracts at $199.00. Purchased 10 cars of wood at $183.30 net to support basis trade. Total dollar cost (10 x 76.032 x $183.30) = $139,366.66.

Hedges: Sold 5 July plywood at $198.50 and 5 July plywood at $199.50.

Open equity	$ 1,406.00
Cash balance	4,784.00
Deposit required (35 x $400.00)	(14,000.00)
Cash to broker	$(7,810.00)

Accounting entry:	Debit	Credit
Deposits	$ 8,000.00	
Inventory	139,366.66	
Deferred gain or loss		$ 190.00
Cash		147,176.66

12/30/76

Basis trades: Sold 5 May plywood contracts at $195.80. Purchased 5 cars of cash wood at $180.60 to support basis trade. Total dollar cost (5 x 76.032 x $180.60) = $68,656.90.

[1] Deferred futures gain is the change in open equity since the prior trading day.

Open equity	$ 7,106.00
Cash balance	12,594.00
Deposit required (40 x $400.00)	(16,000.00)
Cash from broker	$ 3,700.00

Accounting entry:	Debit	Credit
Deposits	$ 2,000.00	
Inventory	68,656.90	
Deferred gain or loss		$ 5,700.00
Cash		64,956.90

1/3/77

Basis trades: Sold 5 May plywood contracts at $199.50. Purchased 5 cars of cash wood at $183.30 net to support basis trade. Total dollar cost (5 x 76.032 x $183.30) = $69.683.33.

Certificates: Registered and issued 20 certificates at a settlement price of $191.00 as offsets to all January basis trade positions. Total cash generated (20 x 76.032 x $191.00) = $290,442.24.

Trade P & S:

Bought 20 Jan. @ $191.00	Sold 5 Jan. @ $193.50	$ 950.00
	Sold 10 Jan. @ $194.00	2,280.00
	Sold 5 Jan. @ $195.00	1,520.00
Less 20 commissions at $30.50 each		(610.00)
Profit on trade		$ 4,140.00
Total cash received (combination of cash received for certificates and gain or loss on trade)		$294,582.24

T Account Summary of Six Weeks' Activity

	CASH		ACCOUNTS RECEIVABLE		DEPOSITS		INVENTORY	
Date	DR	CR	DR	CR	DR	CR	DR	CR
12-15	$	$143,366.66	$	$	$ 4,000.00	$	$139,366.66	$
12-16		70,467.33			2,000.00		69,683.33	
12-17		147,176.66			8,000.00		139,366.66	
12-30		64,956.90			2,000.00		68,656.90	
1- 3	204,719.61				24,893.30	16,000.00	69,683.33	
1- 4		204,262.85					211,102.85	
1- 5		7,638.00						
1- 6	8,514.00				3,000.00			
1- 7		10,422.00			4,000.00			
1-10	33,183.50		70,035.46			4,000.00		69,683.33
1-11	15,653.50		70,035.46			3,000.00		68,656.98
1-13								
1-13		110,615.66	68,318.91		1,000.00			69,683.33
1-13			140,070.80					139,366.66
1-14	18,023.00		135,264.57			1,000.00		210,418.56
1-19		15,884.50						
1-19								
1-20	2,127.00							
1-21		8,437.00						
1-28	16,315.00					16,893.30		
1-28								
2- 2	2,198.50					6,000.00		
	300,734.11	783,227.56	483,725.20	—0—	48,893.30	46,893.30	697,859.73	557,808.78
	(482,493.45)		483,725.20		2,000.00		140,050.95	

The trader issued the certificates because the cash market was lower than the futures market. In order for the trader to maintain his original position on the 20 contracts he had sold, we take any profit or loss on this transaction as part of the certificate revenue or liability.

T-Bills: Bought $25,000 T-bill for $24,893.30 to cover initial margin deposits. T-bill will mature January 28, 1977.

Open equity		$(4,180.00)
Cash balance		8,894.00[2]
Profit on certificate trades		4,140.00[2]
Certificate cash		290,442.24[2]
T-bill purchase		(24,893.30)[2]
Deposit required (25 x $400.00)	$(10,000.00)	
T-bill	25,000.00	None Required
Cash from broker		$274,402.94[2]

Accounting entry:	Debit	Credit
Deposits	$	$ 16,000.00
T-bill deposit	24,893.30	
Inventory	69,683.33	
Deferred gain or loss	11,286.00	
Certificates		294,582.24
Cash	204,719.61	

1/4/77

Basis Trades: Sold 5 July plywood contracts at $201.00, 5 July plywood contracts at $202.00, and 5 July plywood at $203.00. Purchased 15 cars of cash wood at $185.10 to support basis trade. Total dollar cost (15 x 76.032 x $185.10/MSF) = $211,102.85.

[2] Combination of these items gives you the cash balance on the following day.

T Account Summary of Six Weeks Activity (Continued)

	CERTIFICATES		DEF. GAIN OR LOSS		CERTIFICATE COST		INCOME	
Date	DR	CR	DR	CR	DR	CR	DR	CR
12-15	$	$	$	$	$	$	$	$
12-16				1,216.00				
12-17				190.00				
12-30				5,700.00				
1- 3		294,582.24	11,286.00					
1- 4				6,840.00				
1- 5			7,638.00					
1- 6				11,514.00				
1- 7			6,422.00					
1-10				27,056.00				2,479.63
1-11				11,172.00				2,860.06
1-13								3,423.08
1-13				29,412.00				704.14
1-13	73,645.56				71,907.58			1,737.98
1-14	73,645.56			2,888.00				12,626.57
1-19	73,645.56					71,907.58		1,737.98
1-19			19,912.00					4,027.50
1-20			7,258.00					9,385.00
1-21			17,442.00					9,005.00
1-28								106.70
1-28			9,120.00					8,435.00
2- 2			13,604.00					9,802.50
	220,936.68	294,582.24	92,682.00	95,988.00	71,907.58	71,907.58	—0—	66,331.14
	(73,645.56)		(3,306.00)		—0—		(66,331.14)	

Hedges: Sold 5 September plywood at $201.00 and 5 September plywood at $202.00:

Open equity		$ 2,660.00
Cash balance		4,180.00
Deposit required:		
(50 x $400.00)	$ (20,000.00)	
T-bill	25,000.00	None Required
Cash from broker		$ 6,840.00

Accounting entry:	Debit	Credit
Inventory	$ 211,102.85	$
Deferred gain or loss		6,840.00
Cash		204,262.85

1/5/77

Hedges: Sold 5 September plywood contracts at $200.50 and 5 September plywood contracts at $201.50.

Open equity		$(4,978.00)
Cash balance		(2,660.00)
Deposit required:		
(60 x $400.00)	$ (24,000.00)	
T-bill	25,000.00	None Required
Cash to broker		$(7,638.00)

Accounting entry:	Debit	Credit
Deferred gain or loss	$ 7,638.00	$
Cash		7,638.00

1/6/77

Hedges: Sold 5 July plywood contracts at $201.00 and 5 July plywood contracts at $202.00.

Open equity		$ 6,536.00
Cash balance		4,978.00
Deposit required:		
(70 x $400.00)	$(28,000.00)	
T-bill	25,000.00	(3,000.00)
Cash from broker		$ 8,514.00

Accounting entry:	Debit	Credit
Deposits	$ 3,000.00	$
Deferred gain or loss		11,514.00
Cash	8,514.00	

1/7/77

Hedges: Sold 5 July plywood contracts at $199.50 and 5 July plywood contracts at $200.50.

Open equity		$ 114.00
Cash balance		(3,536.00)
Deposit required:		
(80 x $400.00)	$(32,000.00)	
T-bill	25,000.00	(7,000.00)
Cash to broker		$(10,422.00)

Accounting entry:	Debit	Credit
Deposits	$ 4,000.00	$
Deferred gain or loss	6,422.00	
Cash		10,422.00

1/10/77

Basis trades: Sold 5 cars of 1/2 CDX to ABC Company at $204.00/MSF (gross) and purchased 5 May plywood contracts at $193.00. This completes the basis trade that had been previously set up on December 17.

Accounts receivable—Should be debited:

(5 cars x 76.032 MSF/Car x $204.00/ MSF x .90307)	$ 70,035.46
The cost of wood charged to the sale should be: (5 x 76.032 x $183.30). This will come out of wood in storage.	$(69,683.33)

The futures gain on the transaction was:

Cost of wood	$(69,683.33)
Buy 5 May at $193.00 Sell 5 May at $199.00	2,280.00
5 commissions at $30.50	(152.50)
Total cost of wood	(67,555.83)
Sales revenue	70,035.46
Book as completed basis trade	$ 2,479.63

Certificates: The cash price has come back in line with the futures price so the trader decides to buy back 5 of the 20 certificates he has outstanding. The trader does this by buying 5 January contracts that he will turn into certificates for $189.00/MSF. The trader then sells 5 cars of cash wood for $184.23/MSF. The actual accounting for this transaction will take place when the certificates are received with the final settlement price (see January 13).

Open equity		$ 27,170.00
Cash balance		6,886.00
Profit on futures side of the basis trades		2,280.00
Commissions		(152.50)
Deposit required:		
(70 x $400.00)	$(28,000.00)	
T-Bill	25,000.00	(3,000.00)
Cash from broker		$ 33,183.50

Accounting entry:	Debit	Credit
Deposits	$	$ 4,000.00
Accounts Receivable	70,035.46	
Inventory		69,683.33
Income		2,479.63
Deferred gain or loss		27,056.00
Cash	33,183.50	

1/11/77

Basis trades: Sold 5 cars of 1/2 CDX to DEF Company at $184.23/MSF (net) and purchased 5 May plywood contracts at $191.50 .This completes the 5 additional basis trades which had been placed on December 30. Accounts Receivable should be (5 x 76.032 x $204.00 x .90307) = $70,035.46. The futures gain on the transaction was:

Cost of wood:	
5 x 76.032 x $180.60	$(68,656.90)
and	
Buy 5 May at $191.50, sell 5 May at $195.80	1,634.00
5 commissions at $30.50 each	(152.50)
Total cost of wood	(67,175.40)
Sales Revenue	70,035.46
Book as completed basis trade	$ 2,860.06

Certificate: The trader decides to buy back 5 more certificates by buying 5 January contracts at $188.50 that he will turn into certificates. He also sells 5 cars of cash wood at $184.23/MSF. The actual accounting for this transaction will take place when the final settlement price for the certificate is known (see January 13).

Open equity		$ 38,342.00
Cash balance		(24,170.00)
Profit on completed trades		1,634.00
Commissions		(152.50)
Deposit required:		
(60 x $400.00)	$(24,000.00)	
T-bill	25,000.00	None Required
Cash from broker		$ 15,653.50

Accounting Entry:	Debit	Credit
Deposits	$	$ 3,000.00
Accounts receivable	70,035.46	
Inventory		68,656.90
Deferred gain or loss		11,172.00
Income		2,860.06
Cash	15,653.50	

1/13/77

Basis trades: Bought 5 May plywood contracts at $186.50 and sold 5 cars of cash wood at $199.00/MSF (gross). This transaction completes the 5 basis trades which had been placed on January 3.

Accounts receivable increase is: (5 x 76.032 x $199.00/MSF x .90307)	$ 68,318.91

The futures gain on the transaction was as follows:

Cost of wood (5 x 76.032 x $183.30)	$(69,683.33)
Buy 5 May at $186.50; sold 5 May at $199.50	4,940.00
5 commissions at $30.50 each	(152.50)
Total cost of wood	(64,895.83)
Sales revenue	68,318.91
Completed basis trade	$ 3,423.08

Certificates: Ten certificates are received, 5 having been purchased on January 10 at $189.00/MSF and the remaining 5 on January 11 at $188.50. Settlement price on this day is $188.00. Five of the ten certificates received are some of those we issued earlier. The remaining 5 belong to a different regular shipper. Those which we had issued are retired immediately; those which came from another shipper are held as an offset to other certificates, issued by us, which remain outstanding. This is necessary because the plywood which had originally been held as an offset has been sold and shipped. The certificates now being held have the effect of replacing wood which has been shipped out.

Cost of the 10 new certificates:

Bought 10 certificates at $188.00 (10 x 76.032 x $188.00)	$(142,940.16)
Bought 5 January at $188.50; sold 10 January at $188.00	
Bought 5 January at $189.00	(570.00)
10 Commissions	(305.00)
Total cost	$(143,815.16)

Although 10 certificates are purchased, only 5 are canceled. For those, the following applies:

Reduction of certificate liability (20 outstanding at $294,582.24 x 25%)	$ 73,645.56
Cost of 5 certificates purchased (50% of $143,815.16)	(71,907.58)
Gain on certificates retired	$ 1,737.98

The remaining uncanceled certificates will be carried as an asset until the outstanding certificates are retired.

Remaining and not yet accounted for is the sale of cash wood which was made when the recent purchase of certificates was made:

Sale of 10 cars at $204.00/MSF x .90307	$ 140,070.80
Cost of wood sold:	
10 cars of wood at $183.30 net	(139,366.66)
Gain on sale of wood	$ 704.14

Tying together all of the above to compute the required cash transfer yields the following:

Open equity		$ 67,754.00
Cash balance		(38,342.00)
Certificate cost		(143,815.16)
Profit on basis trade contracts		4,787.50
Deposits:		
(65 x $400.00)	$(26,000.00)	
T-Bill	25,000.00	(1,000.00)
Cash to broker		$ 110,615.66

Accounting entry:	Debit	Credit
Cash	$	$100,615.66
Deposits	1,000.00	
Deferred gain or loss		29,412.00
Accounts receivable (B.T.)	68,318.91	
Inventory		69,683.33
Income		3,423.08
Certificates	73,645.56	
Certificate cost	71,907.58	
Income (certificate)		1,737.98
Accounts receivable	140,070.80	
Inventory		139,366.66
Income		704.14

Reader's Note: At this point, we deviate from the treatment shown on the "Futures Control Sheet" in Monograph No. 7. There, one-half of the outstanding futures liability was shown as being eliminated by retiring five certificates and holding five others in offset. In actual accounting practice, the full gain on the five certificates which continue to be held is not reflected as a gain until the five company-issued certificates are actually retired.

1/14/77

Certificates: Five of the remaining 15 company certificates are called for shipment. This obligation is met by shipping wood from storage. Then, the corresponding certificate and inventory accounts are reduced to reflect the change:

Reduce certificate liability (25% of $294,582.24)	$ 73,645.56
Reduce wood in inventory 5 x $183.30 x 76.032	(69,683.33)
Completed basis trade	$ 3,962.23

Basis trades: Lifted 10 of the 15 basis trades which were placed on January 4. Sold 10 cars of cash wood at $197.00 gross and repurchased 5 July contracts at $183.00 and 5 July contracts at $182.00/MSF.

Receivable: 10 at $197.00/ MSF x .90307		$ 135,264.57
Less cost of wood 10 at $185.10 net		(140,735.23)
Loss on cash wood		$(5,470.66)
Bought 5 July at $183.00; sold 5 July at $201.00		$ 6,840.00
Bought 5 July at $182.00; sold 5 July at $202.00		7,600.00
Less 10 commissions		(305.00)
Profit on futures		$ 14,135.00
Completed basis trade profit		$ 8,664.34
Total basis trade profit		$ 12,626.57
Open equity		$ 70,642.00
Cash with broker		(66,754.00)
Profit on trades		14,135.00
Deposit required		
(55 x $400.00)	$(22,000.00)	
T-Bill	25,000.00	None Required
Cash from broker		$ 18,023.00

Accounting entry:	Debit	Credit
Deposits	$	$ 1,000.00
Accounts receivable	135,264.57	
Inventory		210,418.56
Deferred gain or loss		2,888.00
Certificates	73,645.56	
Income		12,626.57
Cash	18,023.00	

1/19/77

Hedges: Removed 5 July contracts by purchasing 5 July plywood contracts at $187.50.

Buy 5 July at $187.50; sold 5 July at $198.50	$ 4,180.00
5 commissions at $30.50	(152.50)
Hedging gain	$ 4,027.50

Certificates: Had 5 company certificates called. These were passed through to the noncompany certificates which were bought on 1/13/77.

This transaction reduces the certificate liability by the value received when the original certificates were issued.

Reduction in certificate liability: (25% of $294,582.24)		$ 73,645.56
Cost of certificates passed through		(71,907.58)
Gain on certificates		$ 1,737.98
Open equity		$ 50,730.00
Cash with broker		(70,642.00)
Profit on trades		4,027.50
Deposits required		
(50 x $400.00)	$(20,000.00)	
T-Bill	25,000.00	None Required
Cash to broker		$(15,884.50)

Accounting Entry:	Debit	Credit
Certificates	$ 73,645.56	$
Certificate cost		71,907.58
Income (certificate)		1,737.98
Deferred gain or loss	19,912.00	
Income (basis trade)		4,027.50
Cash		15,884.50

1/20/77

Lifted 10 July hedges by buying 5 at $187.00 and 5 at $188.00.

Buy 5 at $187.00; Sell 5 at $199.50		$ 4,750.00
Buy 5 at $188.00; Sell 5 at $201.00		4,940.00
10 Commissions		(305.00)
Hedging gain		$ 9,385.00
Open equity		$ 43,472.00
Cash with broker		(50,730.00)
Profit on trades		9,385.00
Deposit required (40 x $400.00)	$(16,000.00)	
T-Bill	25,000.00	None Required
Cash from broker		$ 2,127.00

Accounting entry:	Debit	Credit
Deferred gain or loss	$ 7,258.00	$
Income		9,385.00
Cash	2,127.00	

1/21/77

Hedges: Lifted 10 hedges by buying 5 July contracts at $189.00 and 5 September contracts at $189.50.

Buy 5 July at $189.00; Sell 5 July at $202.00		$ 4,940.00
Buy 5 Sept. at $189.50; Sell 5 Sept. at $201.00		4,370.00
10 commissions at $30.50		(305.00)
Hedging gain		$ 9,005.00
Open equity		$ 26,030.00
Cash with broker		(43,472.00)
Profit on trades		9,005.00
Deposit required (30 x $400.00)	$(12,000.00)	
T-Bill	25,000.00	None Required
Cash to broker		$(8,437.00)

Accounting entry:	Debit	Credit
Deferred gain or loss	$ 17,442.00	$
Income		9,005.00
Cash		8,437.00

1/28/77

Hedges: Lifted 10 hedges by buying 5 July contracts at $189.00 and 5 September contracts at $189.50.

Buy 5 July at $189.00; sell 5 at $199.50	$ 3,990.00
Buy 5 Sept. at $189.50; sell 5 at $202.00	4,750.00
5 commissions at $30.50	(305.00)
Hedging gain	$ 8,435.00

T-Bill paid off for $25,000.00. Interest earned: $106.70.

Open equity	$ 16,910.00
Cash with broker	(26,030.00)
Profit on trade	8,435.00
T-Bill payoff	25,000.00
Deposit required (20 x $400.00)	(8,000.00)
Cash from broker	$ 16,315.00

Accounting entry:	Debit	Credit
Deferred gain or loss	$ 9,120.00	$
Income		8,435.00
Income (T-Bill)		106.70
Deposits		16,893.30
Cash	16,315.00	

2/2/77

Hedges: Lifted 15 hedges by buying 5 July contracts at $192.00, 5 September contracts at $191.00, and 5 September contracts at $192.50.

Buy 5 July at $192.00; sell 5 July at $200.50	$ 3,230.00
Buy 5 Sept. at $191.00; sell 5 Sept. at $200.50	3,610.00
Buy 5 Sept. at $192.50; sell 5 Sept. at $201.50	3,420.00
15 commissions at $30.50	(457.50)
Hedging gain	$ 9,802.50
Open equity	$ 3,306.00
Cash with broker	(8,910.00)
Profit on trades	9,802.50
Deposit required (5 x $400.00)	(2,000.00)
Cash from broker	$ 2,198.50

Accounting entry:	Debit	Credit
Deposits	$	$ 6,000.00
Deferred gain or loss	13,604.00	
Income		9,802.50
Cash	2,198.50	

SECTION VII
GLOSSARY

Basis: The difference between the current cash price for a product and the price for the same product in the nearest month of the futures market.

Basis Trade: A basis trade is the sale of current production or inventory into the futures market at a price which is more favorable than is obtainable from the existing cash market. It consists of two parts: Wood is bought and placed in storage, and second, an offsetting sale is made into the futures market.
The trade is initiated when the basis is large and is held in effect until some amount of convergence between futures and cash prices has taken place. The trade is completed in one of two ways: Delivery is made against the short futures sale, or the wood is sold and the futures position repurchased, lifting both sides of the transaction.

Basis Trade Wood in Storage: Wood which has been purchased as an offset to open futures short positions. Wood is stored at company facilities or public warehouses.

Broker: A firm through which trades are placed and on whose books the open positions of the corporation are carried. Daily, funds are transferred to or from the broker in accordance with the gains or losses recognized in the account on the previous day.

Cash Balance: The running total of the cash on deposit with the broker. Because excess funds are collected daily, the cash balance should equal and offset the previous day's unrecognized gains or losses in the trading account. This is the balancing account with the broker and will tie back to the Futures Control Sheet discussed in Monograph No. 7.

Cash Received: Funds received from all sources.

Cash Sent: Funds used for futures activities.

Certificate: A document which commits the issuer to ship a specified quantity of the commodity, upon demand, at the request of the owner of the certificate.

Contract: A futures contract is a firm commitment to deliver or to receive a specified quantity and grade of a commodity during a designated month at a price determined by public auction at the commodity exchange. A purchase resulting in a long position may be liquidated by selling the same quantity in the same delivery month. A sale resulting in a short position is terminated by buying back a similar contract or by making delivery of the specified commodity in accordance with the rules of the exchange.

Convergence. Coming together of futures prices and cash market prices for a commodity. Convergence shows as a narrowing of the basis.

Hedge: The sale of future production into the futures market, generally at prices which are above the seller's price forecast for the commodity.

Long: The purchase of a futures contract. The individual making the purchase must complete the trade by taking one of the following actions:

(a) Resell the contract before it expires.

(b) Pay in full and accept delivery of the item in the quantity and at the price and time which was set when the purchase was first made.

Maintenance Margin: A sum, usually smaller than, but part of, the original margin which must be maintained on deposit at all times. If a customer's equity in any futures position drops to or under the maintenance margin level, the broker must issue a margin call for the amount of money required to restore the customer's equity in the account to the original margin level.

Margin: A cash deposit with the broker for each contract as a guarantee of fulfillment of the futures contract. It is not considered as part payment of purchase.

Open Equity: The total gain or loss in a futures trading account.

Open Position: The total of positions not covered by offsetting contracts of the opposite position or by wood in storage.

Plywood Account Status Report: This daily report lists all positions currently open, the price at which the trade was placed, the name of the broker on whose records the trade appears, and the type of trade represented by this transaction. Additionally, it calculates the gain or loss for each position based on the most recent settlement price and summarizes the total gain or loss for the account. The report is prepared daily by posting the day's transactions and settlement prices and is used to calculate the funds to be transferred to or from the broker on the following day. See Monograph No. 7 for a more complete discussion of reporting and control of futures transactions.

Plywood Certificate Wood: That wood which is stored and has been paid for, which is specifically designated as support for certificates issued.

Plywood Futures Daily Report: This report is the trader's primary record of all items which result in a change in the cash balance in the brokerage account. It shows all trades as they are completed, computes the resulting gains and losses, and describes the intended accounting treatment for each. Additionally, it shows non-P&L cash deposits such as freight receipts and payments and other cash items flowing through the account.

Regular: Either a shipping mill or warehouse that meets exchange and commodity contract specifications and rules—including bonding to protect against financial loss.

Speculation: The attempt to anticipate price changes, through market activities, to realize appreciation of venture capital.

Spread: Offsetting future positions. The difference between prices of futures contracts are referred to as spreads. Opportunity exists in correctly anticipating changes in the difference (relationships or spreads) between contract periods.

Settlement Price: The last transaction each day in futures contract month. The settlement price is used to calculate the open equity in a trading account.

Short: The sale of a futures contract. A participant in the market who has sold a contract must complete the transaction by one of the following actions:

(a) Repurchase an offsetting contract at some future time before expiration of the contract which was sold.

(b) Make delivery of the item sold in a specified quantity and at the price and time which was set when the position was first taken.

T-Bills: Deposits to cover initial margins in an account can be provided by the deposit of Treasury Bills. In this way, interest can be earned on the funds which are tied up, and which otherwise would be incurring interest expense and no offsetting revenues.

Trader: The person charged with the responsibility for making trading decisions and for managing all aspects of the activity.

Monographs published to date:

"The Rush to LIFO: Is it Always Good for Wood Products Firms," issued in December 1974 and published in condensed form in the April 1975 issue of *Forest Industries* (This monograph was revised and reissued in January 1976).

"Accounting and Financial Management in the Forest Products Industries: A Guide to the Published Literature," issued in June 1975. (A Supplement to this monograph was issued in Marc 1977.)

"A Decision Framework for Trading Lumber Futures," issued in October 1975.

"Capital Gains Tax Treatment in the Forest Products Industries," issued June 1976.

"Measurement Difficulties in the Log Conversion Process," issued June 1977.

"Capital Budgeting Practices in the Forest Products Industry," issued March 1978.

"A Reporting and Control System for Wood Products Futures Trading Activities," issued July 1978

"Selected Issues of Financial Accounting and Reporting For Timber," issued November 1978

"Pool Log Transfer System," issued August 1979.

"Fundamentals of Financing Major Timber Acquistions," issued January 1980.

"LIFO Inventories in the Forest Products Industry," issued July 1980

Studies in Management and Accounting for the Forest Products Industries

This series of monographs is published by the School of Business, Oregon State University, to disseminate information, research findings, and informed opinion about current problems and opportunities in the management of, and accounting for, enterprises in the forest and wood products industries.

Additional information about these Studies may be obtained from the program director, Dr. Robert E. Shirley, at the School of Business, Oregon State University, Corvallis, Oregon 97331.

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