1-904

# FUTURES TRADING IN PLYWOOD

H. B. Sorensen\*

Directors of the Chicago Board of Trade approved the plywood futures contract in July 1969. This was consistent with futures markets in other agricultural commodities which have helped build a sound marketing structure by providing hedging opportunities.

Plywood production has more than doubled during the past 10 years, while industry price history indicates long-term growth in plywood consumption. Plywood supply is relatively stable on a short-term basis, but demand can fluctuate sharply.

The futures market provides a trading mechanism by which plywood suppliers and users may more effectively obtain protection against price changes in shortrun market conditions.

During 1967-68 plywood and lumber prices fluctuated widely to more than double in price, then dropped drastically to original prices or lower. Because of rapid price changes, plywood manufacturers and construction firms could not accurately quote future delivery and construction prices. Futures trading quotations can provide the builder (construction firm, contractors, etc.) a basis on which to project his bid, thus helping to provide more realistic contract prices.

When projections include estimated plywood costs for future use, these estimates can be protected against risk of future price changes by hedging in the futures market.

Any producer, merchandiser, exporter, manufacturer or processor of plywoods who meets trading requirements may use the futures exchange for covering commitments.

### **FUTURES**

Futures trading performs many functions which help in the marketing of traded commodities. For example, it (1) aids price discovery, (2) makes hedging possible, (3) provides forward price quotations, (4) provides a specific trading basis, (5) provides a continuous market, (6) provides an option for delivery and orderly ownership exchange.

Futures trading is a device by which people can price commodities ahead, by either selling or buying. You do not buy back your own contract — but you buy an offsetting contract of someone who no longer wants to take delivery.

### TRADE TERMS

Market functions. Some functions a market provides are assembly, transportation, storage, financing, risk-bearing, processing, wholesaling and retailing. Each is vitally important in the chain of events between the producer of a basic commodity and consumer of the finished product.

Cash market functions. A cash market performs price determination, change of ownership and physical transfer. When plywood plant management elects to sell its product, an agreeable price is negotiated, commodity ownership is transferred to the buyer and the commodity is actually delivered to the purchaser. The cash market represents supply-demand situations which currently exist.

Futures market functions. A futures market may have rapid price change, future expectation of price at a given time and location, and the opportunity to finance future supplies. The futures market evaluates the anticipated situation at a future date. The instrument used in trading is a futures contract.

<sup>\*</sup>Associate Professor, Department of Agricultural Economics and Sociology, Texas A&M University.

Futures contract. A futures contract is a legally binding contract to deliver or to receive specified quantities and grades of a commodity during a designated time period, with the price pre-determined by both buyer and seller. The seller of the contract is required to deliver the goods unless he cancels his contract by buying another contract for the identical quantity. The buyer must accept delivery of this quantity of the commodity unless he sells another contract which offsets or cancels the purchased contract. Rarely is actual delivery of the commodity made because of the ease of offsetting or canceling a futures trade in the market.

# Price per Unit (\$) Time

Fig. 1. Futures price, cash price and "basis" per unit of commodity.

# THE EXCHANGE

A futures exchange operates a market place where members, representing their customers or themselves, can buy or sell futures contracts. An exchange is subject to the U. S. Commodity Exchange Act and all applicable local, state and federal laws. No trading in futures can be made before the official opening signal and none after the closing. Customer orders are relayed to commodity "pits" by messengers. Each order is cited aloud along with hand signals indicating whether the pit trader is buying or selling. Each price transaction is recorded and disseminated from a central quotation department.

Out of the futures trading pits there emerges a price which represents the best judgment on the future value of the commodity by the futures market traders. Interactions among people with different objectives help in arriving at this price, a negotiated level of exchange. Brokers then disseminate this price.

### BASIS

The basic principle behind the futures market is that the levels of prices in the cash and futures markets tend to move up and down together. If cash prices go down, futures prices usually will go down. Conversely, if cash prices go up, futures prices will tend to rise.

Basis is the difference in price between cash and futures quotation. Basis can be plotted over time by either (1) recording cash and futures price quotations in graphic form or (2) recording the difference between cash and futures price quotations. Either method is a matter of choice. The objective of such plotting is to observe changes in cash and futures price quotations and factors which contribute to these movements, figure 1.

### HEDGING

Hedging is taking a position in the futures market equal to and opposite the one taken in the cash market. A hedge not only protects the hedger against a price loss, but may also prevent him from sharing in a price gain. Hedging is the process of shifting some or all of the risk of price change in either direction to protect a present position. Rarely does a hedge provide complete insurance against risks of price changes.

A perfect hedge is shown in figure 2. The cash market advanced the same amount as did the futures market price. Total risk of price change in the cash market was successfully transferred to the futures market. Even though exact offsetting hedges rarely occur, this example shows the basic mechanics in hedging. If only part of the risk of price change is successfully transferred into the futures market, it in effect reduces the cash price at time of cash purchase.

A hedge by a plywood construction contractor might look like this. His bid on a job is accepted. He now has taken a position in the cash market — he will be a cash customer for plywood when needed in construction at some future date. He buys a futures contract for an equal quantity of plywood in the futures market with delivery at that future date. When the plywood is actually needed the plywood contractor buys in the cash market the desired quantity of plywood and simultaneously sells a futures contract for the same month purchased previously.

By so doing, he has taken an equal and opposite position in the cash and futures market—the objective of which was to shift some of the risk of a price change to others. The liquidity offered by the futures market enables the hedger to enter and withdraw, depending on developing conditions.

	On Oct. 1	
IN THE CASH MARKET		IN THE FUTURES MARKET
SELLS		BUYS
One boxcar—69,120 sq. ft. of $\frac{1}{2}$ " plywood at \$145.00 per 1,000 sq. ft. = \$10,022		One boxcar—69,120 sq. ft. of $\frac{1}{2}$ " plywood at \$155.00 per 1,000 sq. ft. = \$10,714
Advance contract, construction bid or order.		
A boxcar consists of 36 banded units each, 2,160 pieces, 69,120 square feet total per car.		A boxcar consists of 36 banded units each 2,160 pieces, 69,120 square feet total per ca
	On Dec. 1	
BUYS	Dec. 1	SELLS
One boxcar—69,120 sq. ft. of $\frac{1}{2}$ " plywood at \$165.00 per 1,000 sq. ft. = \$11,404		One boxcar—69,120 sq. ft. of $\frac{1}{2}$ " plywood at \$175.00 per 1,000 sq ft. = \$12,090
A boxcar consists of 36 banded units each, 2,160 pieces, 69,120 square feet total per car.		A boxcar consists of 36 banded units each 2,160 pieces, 69,120 square feet total per car
A LOSS OF \$1,382		A PROFIT OF \$1,382

<sup>\*</sup>These are hypothetical prices.

### **SPECULATING**

Speculation is essential to a properly functioning commodity market. The development of futures trading and the rigid rules imposed upon those who trade in the commodity futures has channeled speculation into a role that is economically essential.

The speculator's role in the market is quite different from the hedger. The speculator is willing to risk his capital and his judgment of market movements in hopes of making a profit. These individuals are a most important part in any futures market trading.

## CONTRACT SPECIFICATIONS

The Chicago Board of Trade futures contract represents a box car of thirty-six banded units each of plywood (2,160 pieces, 69,120 sq. ft. total per car). Standard contract grade will be group 1, standard, 32/16, 48" by 96", 5 ply, one half inch thick, exterior glue. The plywood must meet U. S. Production Standards, PS 1-66, as certified by the American Plywood Association, and all panels must be appropriately and legibly marked.

Contract prices will be quoted in units of 1,000 square feet with a minimum fluctuation of 10 cents. Daily trading limits will permit a maximum price fluctuation of \$7.00 per 1,000 square feet above or below the previous day's settlement price.

Contracts will be available every other month with 6 months trading forward of the first trading day and advancing as far as 12 months beyond the first contract month depending on the need of the contract for future price information.

Delivery on the futures contract will be made by a shipping certificate issued by plywood mills approved as "regular for delivery" by the board. The certificate obligates the shipper to ship a box car of contract grade plywood ten business days after the receipt of the initial loading order. A minimum charge of \$3.00 per contract day will be assessed for each day a shipping certificate is outstanding beyond that time.

Futures trading in plywood is probably the least understood and often the most condemned part of the entire lumber industry. Yet it represents a valuable marketing tool.

Individuals must evaluate the use of futures trading based upon their own situation and see it as not a device to increase price, but as a mechanism to shift price risk.

### REFERENCES

Hedging Highlights, Chicago Board of Trade, Chicago, Illinois

Chicago Board of Trade News Bulletin, July 31 Release "Futures Trading, A Grain Marketing Tool". J. J. Siebert,

# **ACKNOWLEDGMENTS**

Subange is subject to 12 to proge Helpful suggestions during the preparation of this publication were received from J. J. Siebert, grain marketing specialist; W. A. Smith, forestry specialist; and Edward Uvacek, livestock marketing specialist, all members of the Texas Agricultural Extension Service, and J. C. Grady, associate professor in the Department of Agricultural Economics and Sociology, Texas A&M University.