Business Week

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COMMODITY TRADING

From corn to call options, it's

The New York Stock Exchange is turning over 30 million shares a day one day after another, but the most vital, creative corner of the investment world today is not at Broad and Wall in New York. It is at LaSalle and Jackson in Chicago, where the towering Board of Trade stands. In a decade of dazzling growth, the nation's futures markets, led by the Board of Trade, have written a new definition of what constitutes a commodity, changed the investing habits of a sizable number of people, helped some very large companies smooth out earnings, and exhibited skills at marketing and merchandising that make such giant rivals as the NYSE look old and tired by comparison.

Stocks may be up dramatically this year, but more often in the past decade, they have been down, and the Big Board has 7 million fewer investors today than it did in 1972. By contrast, the Chicago Board of Trade and the commodity exchanges generally have not had a down spell in years. Paced by the Board of Trade, which does half of all the nation's commodity trading, the futures markets have regularly chalked up more volume, more customers, and more products to sell. Investors who five years ago may not have known a pork belly from a pogo stick have discovered commodities because that is where the torrid action has been all through the 1970s—in soybeans in 1973, in sugar and silver two years ago, in hogs and pork bellies last year, in wheat today. Price fluctuations in commodities can make even a raging bull stock market look tame by comparison (sugar futures jumped some 500% in six months in 1974).

Precisely because price fluctuations have been so extreme in recent years, dozens of the biggest corporations find it advisable nowadays to hedge positions by going into the commodities markets—something only a few big food companies did a few years back. A seat on the Board of Trade (CBT) now costs more than one on the NYSE, and, as further evidence of how things have changed, last year the commodity markets were placed under their own regulatory body, the Commodity Futures Trading Commission. The CFTC—under the chairmanship of William T. Bagley—replaced the toothless and limited Commodity Exchange Authority of the Agriculture Dept. and is equal in muscle to the Securities & Exchange Commission.

Perhaps most remarkable has been the growth during the past decade in the kinds of items that commodity exchanges trade—not just corn, wheat, coffee, and hogs, but silver, gold, plywood, frozen orange juice, live cattle, even foreign currencies. The outstanding breakthrough came three years ago when the CBT quietly unveiled trading in stock market fu-

Gary Gladstone

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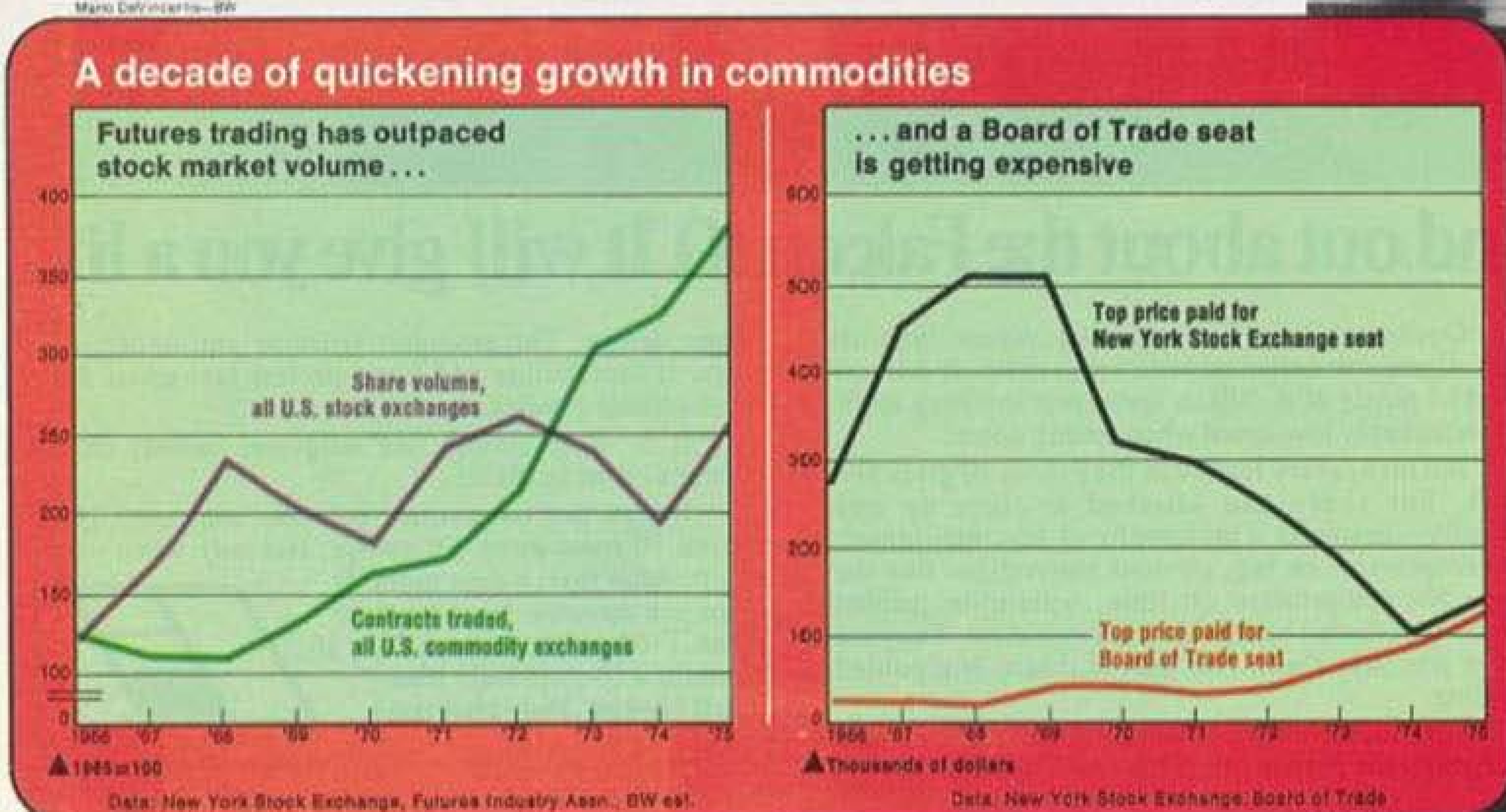

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More volume
More customers
More products

razzle-dazzle action at the Chicago Board of Trade

tures—actually call options on some of the Big Board's most widely traded stocks. To organize this trading, the Board of Trade set up an entity called the Chicago Board Options Exchange. "The creation of the CBOE," says Board of Trade Chairman Paul F. McGuire, "dwarfs any single thing ever done in commodities or securities."

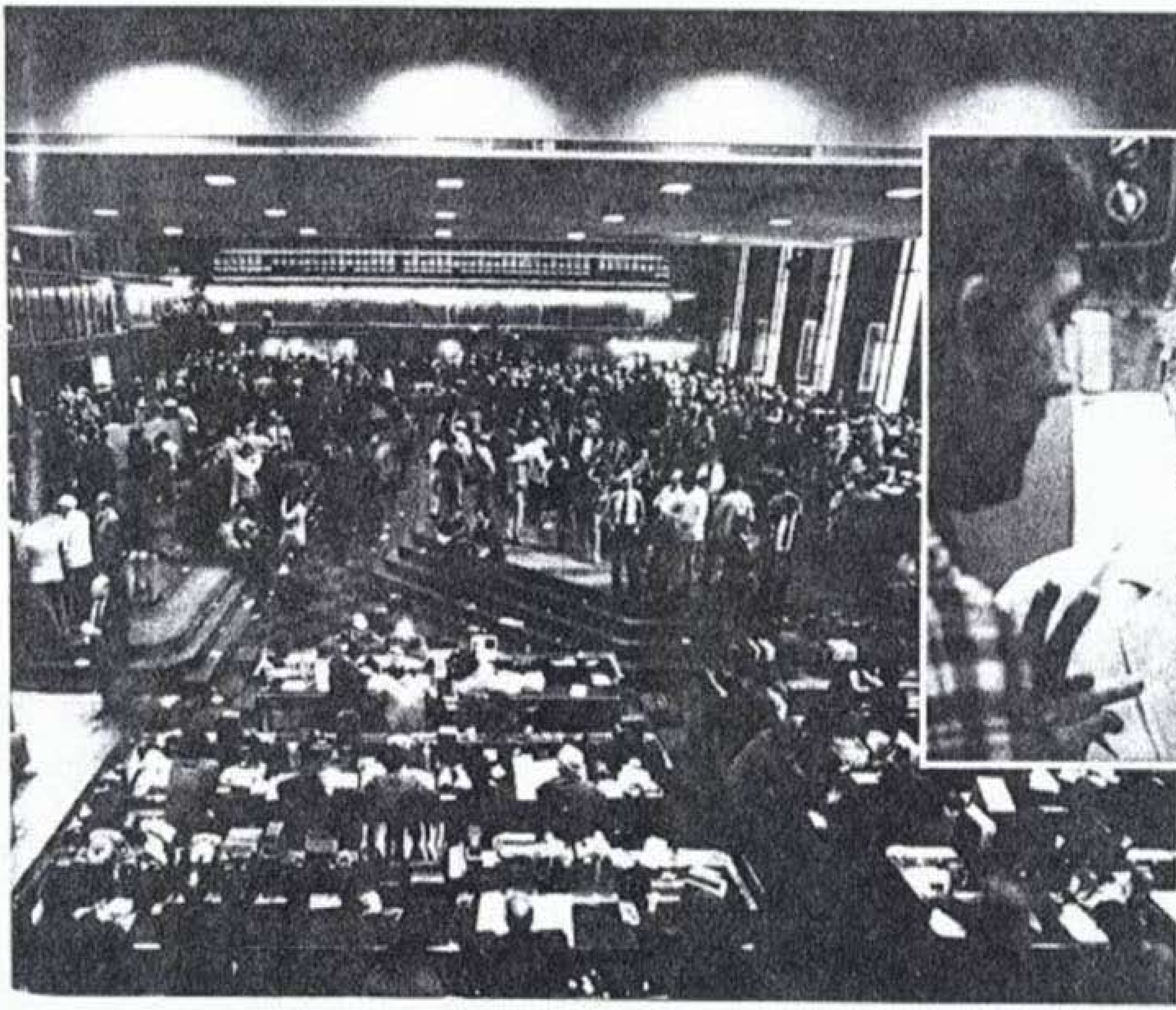
In terms of the number of shares underlying its contracts, CBOE volume in January was more than a third of Big Board volume, although the CBOE trades only in calls—options to buy a stock at a fixed price at some future date—and only in 80 issues. The American and Philadelphia-Baltimore-Washington stock exchanges have followed the CBOE into options, laying the groundwork for a combined options volume that one day might overtake that in the primary stock markets.

More important than volume figures, however, is the CBOE's effect on the concept of what a commodity market is supposed to be, what it trades, and who its customers are. If the Board of Trade can establish trading in stock options, then any exchange can establish trading in anything—and so they are. Now there are futures markets in interest rates, a concept introduced by the CBT last year when it created a contract in mortgage certificates of the Government National Mortgage Assn. (Ginnie Mae). That enabled participants in the mortgage market to begin hedging against fluctuations in long-term rates. In January the Chicago Mercantile Exchange—second only to the CBT in volume—followed with a futures contract in Treasury bills that provides a hedge against fluctuations in short-term interest rates.

The CBOE this year will begin trading in puts—options to sell stocks in the future, as calls are options to buy. Also down the road for one exchange or another may be futures markets in nuclear fuel, oil tanker rates, coal, and a dozen other areas—any area, in fact, in which price volatility makes hedging attractive to the trader and speculation attractive to the public.

Another frontier may open soon if Bagley's CFTC decides, as it has hinted it will, to let exchanges trade in options on commodity futures as they now trade the underlying commodities. If there were established markets in commodity options, it could lower the entry fee and limit some of the risks inherent in commodity futures—and so open the markets to a new crowd of smaller investors.

The Board of Trade remains the gi-



Picture by Dale Wittner

CHICAGO'S MCGUIRE: He pushes the exchange into new fields and puts his own money on the line.

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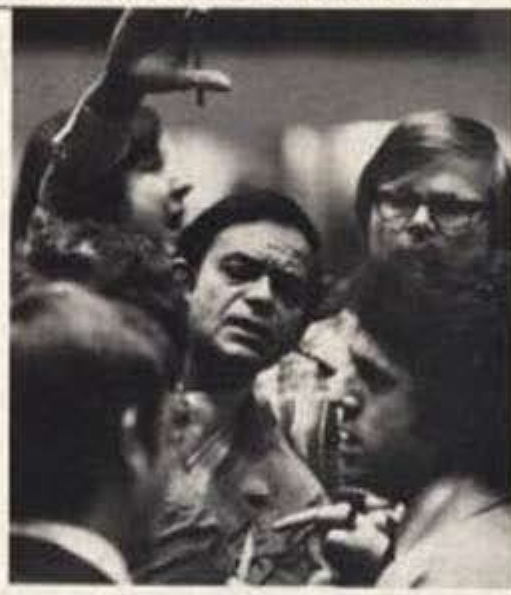

MERC'S MELAMED: "I work out my aggressions on the trading floor."

ant of this turbulent industry, but more than ever it faces some tough, hungry rivals. The Chicago Merc now has one-fifth of the nation's commodity trading business—including the four-year-old International Monetary Market, which last year traded some $13.7 billion in eight foreign currencies and an additional $6.8 billion in gold. The 11 smaller U.S. exchanges have seen their share of futures trading volume grow from 17% in 1970 to 30% today.

While the drama in commodities trading has been heaviest in Chicago, the New York-based exchanges are fighting back. New York's Commodity Exchange Inc., for one, has developed the bulk of the trading in the hyperactive silver contract and now has 12% of the country's total futures trading business.

The boom in commodities trading—volume up 136% in the past five years, against 60% for the NYSE—makes the big stock exchanges look bad by comparison. There are reasons, of course. The securities markets, for one thing, are investor-oriented, and more often than not in the past few years, investors have been shaken by the roller-coaster performance of equities. The futures markets, on the other hand, exist primarily for commercial producers and users of commodities, including money. And they have thrived on the price volatility of the 1970s.

But the price volatility has also drawn speculators, and it is the speculators who make commodity markets work. Accounting for perhaps 40% of the trading activity, they assume the risks and provide the liquidity for commercial accounts. The farmer or the corporation is trading to lock in a price or a profit on goods needed at some future date or on items that will be sold months from now from inventories already on hand. The speculator is essentially guaranteeing the price while hoping that, in the interim, the movement of the markets will give him a profit.

Lively innovation

The possibility of greater price stability over the next 12 to 18 months may mean that some corporations and speculators will back away from futures, but experts feel that this will only cause the growth to slow rather than stop. Says Board of Trade President Warren Lebeck, the exchange's salaried, permanent top administrative officer: "There just is no way that the trend can be reversed. Once you have made a commitment to commodities, it doesn't make sense not to use the markets as a financial instrument."

The commodity exchanges are, in fact, riding on more than just the volatility of commodity prices. Almost without exception, the exchanges have been lively, alert, and supremely innovative at a time when the NYSE has seen its future cast into doubt by external forces and internal inertia. The Big Board's specialist system is under attack, and it is highly probable that brokers will soon be able to trade NYSE-listed stocks off the floor of the NYSE even more freely than they do already. It is entirely possible that the Big Board will ultimately vanish into the central stock market system that seems certain to come.

When it comes to absolute numbers of investors, the stock market retains a very broad edge. Twenty-five million Americans own stock, but fewer than half a million have ever traded a futures contract. Even with the growing interest of corporations in hedging, fewer than 5% of those who could use commodity markets actually do. But the commodity markets have the momentum, partly because they started from so far behind and partly because world economics have made commodities trading unusually attractive. They also have momentum because the leaders of the Board of Trade and its rivals have been quick to take advantage of existing opportunities and aggressive in creating new ones.

The Board of Trade's elected chairman, McGuire, is a pipe-smoking Harvard-educated economist. But he is also the quintessential commodity trader who delights in putting his money on the line in high-risk deals, not only in his own trades but also in pushing his exchange into new fields. When it comes to promoting new deals, however, even McGuire may have met his match in Leo Melamed, the Chicago Merc chairman. Melamed, a Polish-born lawyer turned trader, is a fiery,

The futures principle is the same for all markets

All futures markets—commodities, stocks, even interest rates—work on the same basic principle. In any futures contract, the buyer buys the right to a specified quantity of a commodity on a specified future day. The seller promises to deliver.

If a farmer with 10,000 bushels of wheat in store wants to guard against a possible drop in price, he might sell two 5,000-bushel contracts for delivery in May: "May wheat" closed at the beginning of this week at $3.93 per bushel on the Chicago Board of Trade. On the other hand, a speculator who thinks wheat prices will rise, will buy two contracts at the same price.

If the price of wheat falls between now and May 19, when the May contracts expire, the farmer will buy two contracts, making a profit on the futures transactions that offsets the fall in value of his inventory. The speculator who bought the original contracts takes a loss. If the price of wheat goes on up, the farmer loses money on his futures transaction but offsets it with a rise in the value of his inventory: The speculator makes a profit.

Bulls and bears. Options trading is similar. It allows both bulls and bears to take positions on the direction of a stock's price without obliging them to put up more than a small percentage.

Anyone who thinks Polaroid is going up, for instance, can buy a Polaroid July "40" option. This gives him the right to buy 100 shares at $40 a share any time between now and July 17. Last week, when the stock closed at $37.67, the July option was selling for $4.50, or $450 for the contract.

If Polaroid goes above $40 a share, the buyer can exercise his right to buy the stock at $40 a share, or he can sell the option itself. The option's price will have risen, though it does not move precisely in tandem with the the price of the stock. When the contract expires in July, the seller will have to produce 100 shares of Polaroid or buy back an option similar to the one he sold—probably at a higher price.

If Polaroid does not rise above $40 a share by the end of July, it will not be worth the buyer's while to exercise the option, and it will expire worthless. The seller will still have his stock and will have earned $450 besides.

The new markets in interest rate futures work the same way. The market for mortgage certificates of the Government National Mortgage Assn. ("Ginnie Mae") at the Board of Trade gives companies concerned with the movements of long-term interest rates a mechanism for hedging them. The Treasury bill market at the Chicago Mercantile Exchange permits hedging or speculating in the movements of short-term rates.

If a savings and loan association, for

THE MARKETS

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Pictures by Dale Wittner

fidgety dynamo who acknowledges, "I work out my aggressions on the trading floor." Even after hours of frantic daily trading, there was enough aggression left in Melamed in the early 1970s to turn the Merc in a totally new direction—the trading of foreign currency futures.

Though the International Commercial Exchange in New York was one step ahead in starting foreign currency futures, its timing and contract specifications were off, and significant trading never developed. Undaunted, the Merc initiated its International Monetary Market in 1972. Last year it began trading gold futures, and early this year Treasury bills. "I was able to create an atmosphere of innovation," says Melamed.

The new frontiers

Both Melamed and McGuire have had to push their exchange members into new areas—even to the extent of practically assigning members to trade in the new commodity pits on different days of the week in order to make a market. To entice the brokerage firms that are Merc members to throw their support behind new markets, the exchange has bombarded them with pamphlets and seminars and sponsored big advertising campaigns. It has all paid off. The commodities business today is drawing new interest from the brokerage industry—which is training more brokers to handle commodities and is pouring more money into exchange seats.

This is in direct contrast to the stock market, where many firms are looking for diversification but do not see the NYSE leading them into it. The Big Board, for instance, still is uninterested in trading stock options (or anything else beyond stocks and bonds) despite the growing volume, and even though the Amex has gone into the options business. "I think it just sort of shows the lack of imagination on the part of the NYSE," says the president of one New York brokerage firm. He adds, "If other exchanges innovate and the NYSE does not, then some of that business will simply go elsewhere." Even NYSE Chairman James J. Needham concedes that new markets may be drawing some business away from stocks, although he maintains that the loss has been suffered by other exchanges and not the NYSE.

But the commodity exchanges had their fallow periods, too. At the Chicago Merc in the early 1960s, it took a palace revolt by some younger exchange members to kindle the competitive expansion in futures. Volume at that time had dwindled in two of the Merc's four markets—butter and potatoes—and the government banned trading in yet a third Merc market, onions. By 1963, volume had skidded to 300,000 contracts annually—only 5% of the annual volume of the Board of

example, knows it will buy $1 million in long-term mortgages in June but thinks the yield on mortgages will then be lower, it can use the Ginnie Mae futures market to lock in today's yield. It buys 10 Ginnie Mae contracts at $94,375 a contract, for an effective yield of 8.75%. If long-term interest rates fall to 8.5% by June, the S&L will get one-quarter of 1% less when it actually buys its mortgages, but it will make $17,190 profit by selling off its Ginnie Mae contracts in the futures market. If, instead, long-term rates rise over the next three months, the S&L will have to pay more to erase its position in the futures markets, but its mortgages will be more valuable when it buys them.

Treasury bill contracts come in $1 million amounts (face value at maturity) with margin requirements of only about $1,500 per contract. A corporate treasurer planning to sell $10 million worth of commercial paper in the fall, and expecting short-term interest rates to rise, might have sold 10 September contracts last week, when the rate on three-month bills was around 4.90%, for $984,250 a contract.

If bill rates go up to 7% by September, the treasurer will buy back his contracts then for $982,500 each. This will mean a total profit of $17,500. He will have to pay 2% more on the company's paper, but the extra cost will be largely offset by the profits in the futures market.

CBT's McGuire: "How can you say things will get quieter? You

Trade. So 15 young traders, including Melamed, fought to get some of their own people on the Merc's board of directors so they could develop new areas of business.

First came pork belly futures, followed in 1964 by live cattle futures—the cattle contract breaking an unwritten rule that traded commodities had to be storable. And, in what was nearly a sacrilege, the Merc furiously began promoting its live cattle contracts. At the opening of cattle futures trading, officials of the exchange marched a grand champion steer onto the trading floor. "We were groping for solutions, and we had very little to lose," Melamed explains. Spurred by the Merc's aggressiveness, the Board of Trade itself began to move. In rapid succession, it began trading futures contracts in steers, silver, frozen chickens, plywoods, and stud lumber. But the biggest coup—options trading—was almost a freak development.

Striking it rich

Because it had not traded securities since 1953, the Board of Trade was threatened with the loss of its registration as a securities exchange, and trading options seemed a reasonable enough solution. "At first, options were perceived as just any other new market," says Joseph W. Sullivan, president of the CBOE. "No one had any conception of what we were getting into."

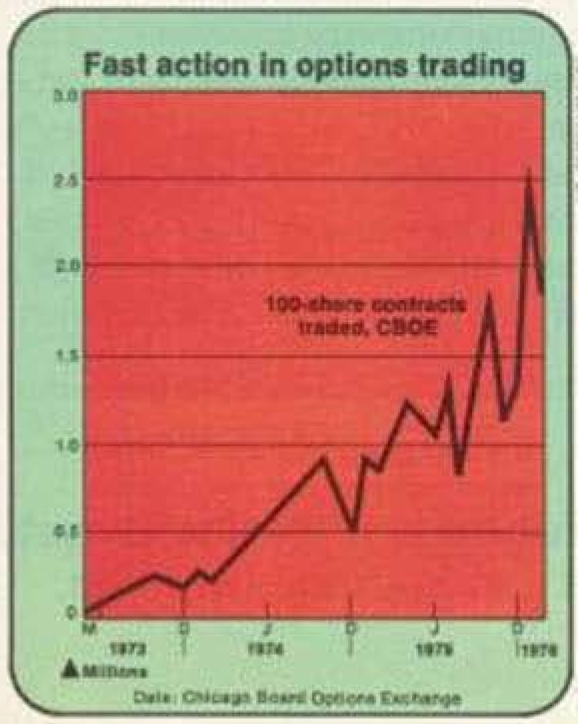
What the CBOE got into with options was a virtual gold mine, clearly the single most important new market in the history of the futures industry.

The lack of stability that explains the boom in all futures also helps explain the astonishing success of the CBOE. But options trading has taken off for reasons that have nothing to do with the rise of other futures contracts. One is the familiarity of some 25 million equity investors with the underlying commodity—stocks. Says Philip Rubenstein, an options specialist with Chicago Corp.: "Putting a client into options after he has been in stocks is a lot easier than suggesting that he trade futures in potato chips or french fries."

Still another reason for their new popularity is that stock options arrived on the scene just as brokers were looking for new investments to compensate for their withering volume in equities. Since then, options have grown in popularity because they have proved very lucrative to those who have successfully played the game (more often to those who sell options than those who buy them). "I never fail to make $100,000 a year in the options market," brags McGuire, who applies his knowledge of commodity futures to his speculation in options contracts.

But the fledgling options market is now suffering some growing pains. For one thing, some investors are finding out the hard way that the CBOE and other options exchanges can harbor every bit as much risk as any other market. In January, as volume on the CBOE rocketed to record levels, some market makers—the CBOE's equivalent of the NYSE's specialists—sold huge numbers of option contracts near the expiration dates without covering those sales with ownership in the underlying stocks. With the Dow Jones industrial average up more than 100 points, the expiration dates on the options drew near, and the market makers had to swallow huge losses as they bought back their options contracts at many times the original selling price. A dozen or so market makers, out of 450 on the CBOE, were in a financially precarious spot because of huge losses in January options.

While they have not attracted such overwhelming trading, many of the other new futures markets at the Board of Trade and Chicago Merc have developed an unusually large following. Futures contracts in Treasury bills and Ginnie Mae certificates are already



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drawing attention from a wide range of commercial customers. And because of the strong business in the underlying bills and mortgage certificates, many insiders expect that both types of contracts will one day rival stock options in glamour. When Merrill Lynch in January published its first advisory recommending Ginnie Mae futures, some 150 orders from Merrill Lynch customers hit the market within two hours. "My personal opinion is that both of these markets will become very successful," says Paul H. Franklin, director of the commodity division at Merrill Lynch. "And if Ginnie Maes and T-bills succeed, they will bring a lot of people into the futures markets who never would have deigned to trade in them before."

Such fresh enthusiasm over Chicago's futures markets is hardly limited to Merrill Lynch, although, as the No. 1 commodity broker, it is leading the pack in capitalizing on the boom in futures–it now has four offices handling nothing but. At Shearson Hayden Stone Inc., the commodities business has jumped from $3.5 million in commissions in 1971 to nearly $30 million today. A new Shearson Hayden program in futures arbitrage–capitalizing on the differences in futures prices at different exchanges, with minimum accounts of $25,000–drew $500,000 in less than two weeks.

Hedging corn and peas

The word is starting to get around. There are many more corporations using the markets now than there were three years ago. Black & Decker Mfg. Co., for example, now follows several metals markets. Rudy Gallat, vice-president of Kroger Co., recently told the CFTC, "If we cannot get a favorable price on flour in the spot market, it may be more feasible for us to go into wheat futures and fix our costs."

New commercial accounts are developing exotic and complicated schemes to solve their particular problems when traditional hedging does not seem to fit. A couple of years ago, Green Giant Co. suddenly found that farmers with which it had contracted to grow certain vegetables no longer wanted to grow them. Instead of sweet corn, beans, and peas, the farmers wanted to switch to wheat, field corn, or soybeans because prices there were moving up faster. As an experiment, the company agreed to pay farmers the profit they could have made on field corn if they agreed to continue planting sweet corn for Green Giant. To meet the cost of that subsidy, the company hedged the price of corn on the futures market–and was able to avoid raising the prices on its canned vegetables. "The experiment was a success, and now we want to expand it to hedging peas against field corn," says Leonard A. Barzan, vice-president for finance.

The movement into futures markets has not come without some reservations on the part of corporate executives, however. "Because some companies don't understand how the markets work, they are afraid they will hedge themselves into a loss," says Raymond J. Doll, senior vice-president of the Federal Reserve Bank of Kansas City, the federal government's key agricultural bank.

One executive with a major West Coast lumber company admits that his company learned just such a painful lesson. "When we started hedging in futures a couple of years ago, we thought our own purchasing department could provide all of the expertise we needed. We took a terrific beating right off the top." But instead of pulling out of the markets, it hired two $50,000-a-year commodity experts: The company estimates that the two saved that much money in their first month on the job.

Security for bankers

More bankers are urging the use of the commodities futures markets on their clients today. At Chicago's Harris Bank, Vice-President Wallace G. Weisenborn looks upon inventories that are unhedged with futures contracts as being a greater speculation than futures hedging itself. "We tell our clients that if they want to speculate by not hedging, they can do it with their own money, not ours," says Weisenborn. Adds John Goodridge Jr., vice-president at Chicago's Continental Illinois' National Bank & Trust Co.: "We can give a bigger percentage advance against hedged inventories than we can against unhedged ones." Hedged grain inventories might get a 90% loan and unhedged inventories only 60%.

A horde of amateur speculators has also been attracted to commodities. Since the only trades reported to the CFTC are those of a size that an institution would make, no one knows exactly how many there are, but most market executives say more speculators are trading in futures contracts than ever before. "We attracted many new speculators who didn't really understand the market but figured they could make a killing," observes the Board of Trade's Lebeck.

Most figured wrong. In the first half of 1973, when prices on soybeans somersaulted from $4 a bushel to almost $13, individual speculators were widely blamed for artificially pushing up the price. But when prices settled back, it became clear that the speculators had generally been selling futures contracts short. Instead of buying the contracts and driving prices up further, their actions actually held prices down, and their only reward was a fat loss. "I've never seen a group of people who so often end up guessing wrong," says a cynical McGuire. "They get in too late, leave too early when they are making money, and stay too long when they are losing."

While they clearly have an element of the Las Vegas gambler, commodity futures speculators remain among the least known figures in the financial world. A study by the Merc some years ago showed that speculators tended to

Watchdog Bagley: His new regulatory unit marks a coming-of-age for commodities.

be male executives and professionals, the majority earning under $25,000 a year. They traded one or two contracts at a time, and they lost on four of every five trades.

Despite those odds, futures markets are almost irresistible to anyone willing to risk a total loss in order to have a shot at a spectacular gain. Much of the attraction comes from the limited amount of capital needed to play for big stakes. To buy a contract on 5,000 bushels of wheat valued at $17,500, the speculator must put up only 10%, or $1,750. Thus, a mere $3,000 invested in sugar futures in March, 1974, would have produced a $58,000 profit by November of that year. The broker commission is a flat fee, usually around $30 "roundtrip," which does not vary with the value of the contract.

But in the eyes of professional speculators, trading in futures requires more expertise than investing in equities. The shape of the wheat crop even in such remote and diverse places as South America and Australia can dramatically affect the prices quoted on the Board of Trade. The exchanges themselves are usually hotbeds of information that seldom reaches the amateur. "I really think at times there is more business done in the pits in trading gossip than wheat," muses one exchange executive, "but the importance of that is that only the ill-informed end up getting burned." Grumbles McGuire: "Most speculators feel they can get something for nothing and are unwilling to do their homework. But this is not a casual hobby."

The pros lose, too

Even the commodity exchanges take some losses, with only about half of the new contracts introduced actually succeeding in the long run. The Pacific Commodities Exchange Inc. opened five years ago with high hopes. But trading in its first and largest commodity, coconut oil, never caught fire, and the PCE is in serious financial trouble. "To attract people to the market, you have to have people trading, and that is what we lack," moans PCE President Nathan Most. "People go to markets where there is liquidity."

For all their liquidity, the established exchanges are not resting on their laurels. The recent introduction of financial futures in Treasury bills and mortgage certificates marks the end of an era of diversification, but the beginning of an era of cultivation and refinement of all the new markets. "In the last decade we have bitten off so much we had better take time and chew it," says the Merc's Melamed. "Even in cattle–which is one of the most successful contracts of a decade–we've only tapped 3% to 5% of potential industry usage. We have not yet begun to touch the potential of currencies. And the Treasury bill market potential is bigger than all our other markets put together–it boggles the mind."

So a huge educational effort that will bring more and more people into the markets still remains. McGuire sees other tasks ahead, too: "Now we have the CFTC challenging everything. That will occupy us for the next four or five years justifying our existence. We'll also have to fight export controls and be involved in food reserve policy. There's an awful lot of things we need to do besides develop new products."

As for the central business of shifting risk during periods of high volatility, most futures industry experts are bullish. And even if one market grows slack–as the corn pits have in recent weeks–there are a host of other areas where there could still be plenty of volatility. But, grins McGuire, "How can you say things are going to get quieter? You ain't seen nothing yet." ■