

**EXHIBITS**

PVM  
Oil Consultants

*Biography - Marshall Thomas*

Marshall Thomas is Senior Vice President of PVM Oil Consultants, Inc., an affiliate of the major international oil brokerage firm, PVM Oil Associates, Inc. He is a leading oil market and pricing analyst, and has been active in the petroleum industry since 1967. In his work with PVM, Mr. Thomas has been involved in a variety of large projects including: major commercial audits of strategic planning/oil trading system management for refining and marketing firms; representation of buyers seeking to obtain U.S. downstream assets; evaluation of crude oil producing assets; and a feasibility analysis for potential oilfield expansion.

Mr. Thomas was previously based in Washington, DC as Group Editor & Publisher of The Oil Daily publishing group for several years and was a founding editor of The Energy Compass. He was also a director of the annual London & Singapore Oil & Money conference programs in conjunction with the International Herald Tribune. Prior to joining the Oil Daily, Mr. Thomas was associated with Petroleum Intelligence Weekly (PIW) as primary pricing and market specialist, Editor-in-Chief and creator of PIW's monthly Petroleum Market Intelligence. Mr. Thomas was on the editorial staff of McGraw-Hill's Platt's Oilgram Price Service in 1967 and 1968.

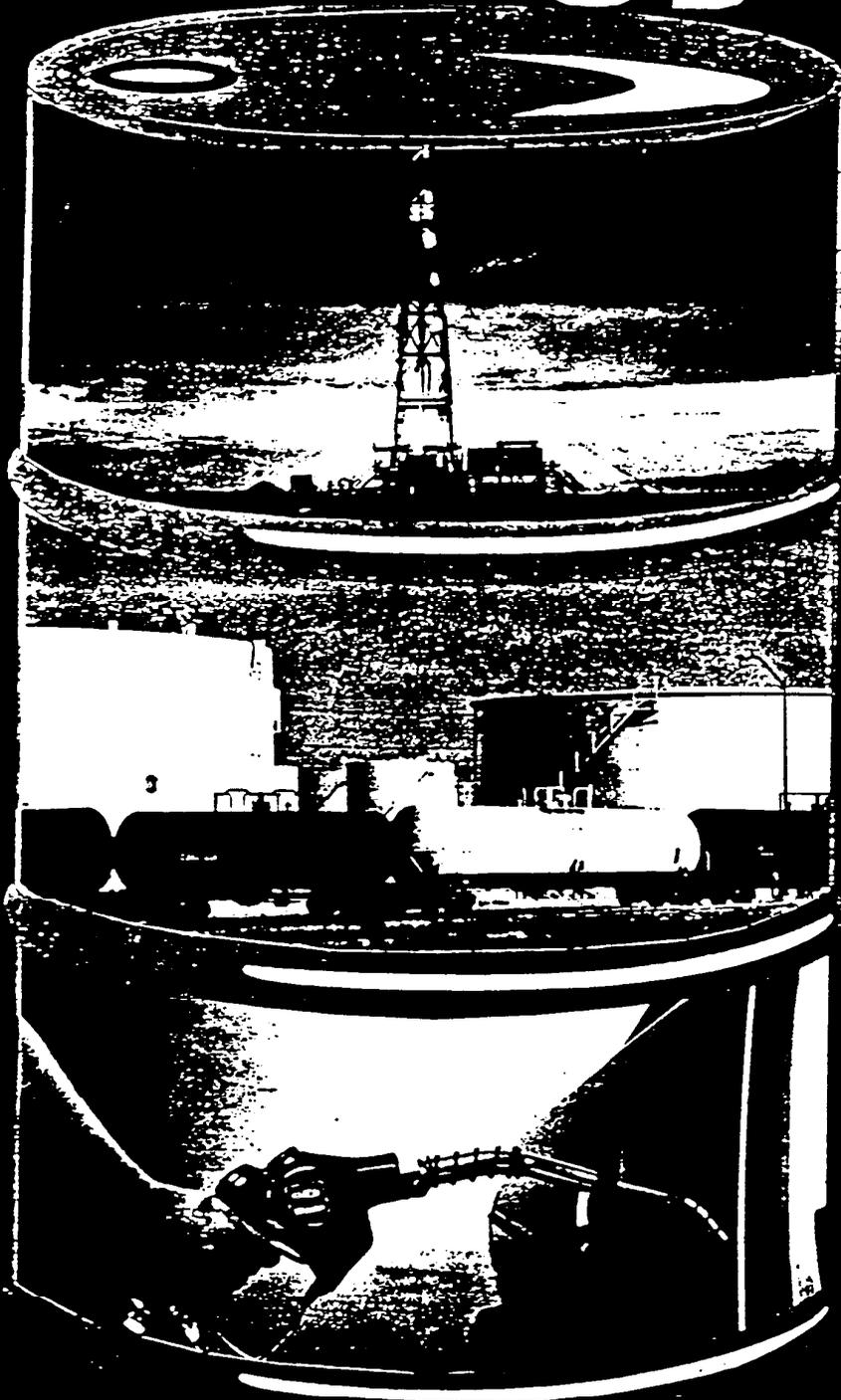
Mr. Thomas received the "Award for Excellence in Written Journalism" from the International Association for Energy Economics (IAEE) in October 1992. He received the Independent Petroleum Association of America's Lloyd N. Unsell Award for "Excellence in Journalism" on behalf of The Oil Daily in October 1991. Mr. Thomas has given lectures under the auspices of Japan Cooperation Center For Petroleum Industry Development (Tokyo), Asia Pacific Petroleum Conference (Singapore), Oil & Money Conferences (London & Singapore), Institute of Petroleum (London), Association of Energy Professionals (New York), New York Mercantile Exchange, and Mobil Oil (at a management seminar). He has also appeared on U.S. and international television: Cable News Network's (CNN's) Business Morning program, C-Span's "Newsmaker" program, and local network affiliates of CBS. Mr. Thomas was educated at Trenton State College in New Jersey.

# Energy

IN THE NEWS

Winter 1996/1997

EXHIBIT B



*Hedging  
Every  
Aspect  
of the  
Barrel*

NEW YORK MERCANTILE EXCHANGE

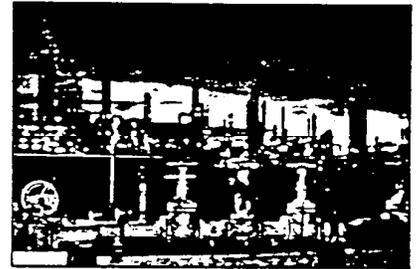
# Energy

IN THE NEWS

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*Crude oil producers largely depend upon a system of formulas for their pricing in which the NYMEX Division light, sweet crude oil futures play a vital role.*

## One Way or Another, Crude Oil Pricing Comes Around to Futures

BY MARSHALL THOMAS  
Senior Vice President  
PVM Oil Consultants, Inc.

**T**he present crude oil formula pricing system is a vast improvement over the previous rigid methods. Formula-pricing systems are critical because they are used to price virtually all of the OPEC and non-OPEC supplies moving in global trade, and millions of dollars are potentially at stake.

The system is not perfect, some of the flaws have been implicit for decades, yet there is a reluctance to

change the status quo and, at any rate, present pricing methods are much more responsive to market conditions than to the former system of official prices, ongoing price negotiations, product-based netbacks and other inflexible methods.

Crude oil futures, which have traded since the introduction of the NYMEX Division light, sweet crude contract in 1983, have become an integral part of the pricing mechanism. The published cash market quotes almost universally used in crude oil contract formulas are essentially a proxy for the baseline level of global oil prices that are determined by the futures markets.

Middle Eastern OPEC crude (also known as Saudi Arabian Light f.o.b. Ras Tanura and/or Iranian Light f.o.b. Kharg Island) was the international benchmark grade through much of the 1970s and 1980s. The yardstick crude price was typically defined as an "official" price, and it served as the framework of a producer-managed pricing system that never really worked very well. The attempt by OPEC collectively, and its members individually, to legislate a price and establish differentials for quality, location, and even currency changes proved an unenforceable administrative nightmare.

The light, sweet crude oil futures

contract achieved widespread acceptance by 1987; it is no coincidence that a big leap of growth in volume occurred that year, when OPEC abandoned official prices. In the years since, the NYMEX Division contract has gained growing acceptance, with trading volume now on a scale of 150,000 contracts (equivalent to 150 million barrels) changing hands on a good trading day. In terms of liquidity and scope of participation, the NYMEX Division contract is the primary de facto global benchmark. The market for West Texas Intermediate sweet crude is defined by the cash market and its participants in turn make widespread use of the NYMEX Division light, sweet contract. The degree of activity is such that the NYMEX Division quote sets a base line yardstick for U.S. domestic crude prices, and represents the primary price line for the oil industry in many parts of the world.

The launch of the International Petroleum Exchange's Brent contract in 1988 came after the big spurt in NYMEX Division trading activity and the demise of official OPEC pricing. IPE volume on a good day is now in excess of 50,000 contracts (the equivalent of 50 million b/d). Unlike the NYMEX Division crude contract, the IPE does not provide for physical delivery, but utilizes a cash settlement mechanism calculated against an index published by the exchange each day. The contract is designed and intended to track the underlying cash forward market in Brent (15-day Brent), so the settlement index is compiled daily on the basis of weighted averages of paper deals reported by six pricing services, *Platts Oilgram*, *Petroleum Argus*, *ICIS-LOR*, *Reuters Pipeline*, *Telerate*, and *RIM Intelligence*.

In some respects, the oil futures exchanges and the oil trade (pricing) press are in the same business: price discovery. Both the New York Mercantile Exchange and the IPE see

crude oil futures as part of a "whole" market, and are inter-dependent on the other aspects for success. NYMEX Division futures price are seen as a "reflection" of the cash markets, with the floor of the exchange providing a venue for trade and a mechanism for making prices known, or transparent. IPE Brent futures are a component of a three-pronged trading complex that extends beyond the exchange floor. It also embraces the "dated" spot or physical market for crude loading in Sullom Voe, and the Brent 15-day "forward" or "paper/cash" market which is concentrated on supplies one to three months ahead.

The NYMEX Division light, sweet crude oil futures contract provides a pricing baseline for many markets, even to a certain extent for the IPE Brent futures market, which often takes a cue from the activity on the NYMEX Division. Liquidity, for example, is greatest on the IPE when the NYMEX Division contract is also open. The two crudes are traded against one another rather frequently, and, as a result, the Brent/WTI spread is a viable trading and price market for the industry.

Both the New York and London crude futures markets are utilized, singularly and in unison, by the cash markets, depending on the needs of each transaction. While some purists would argue that only one futures market is necessary for a given commodity, the oil trade thus far finds it useful to work with multiple instruments.

Traditionally, the benchmarks are referred to by grade type, such as WTI, or Brent, which implies a direct connection between the price and a physical supply of that oil. With the commoditization of oil, the connection is less well defined. The crude that the U.S. industry refers to as WTI is largely synonymous with the NYMEX Division light, sweet futures contract, but the two are not the same.

Numerous grades other than WTI are deliverable against the futures contract, and the Exchange very pointedly discourages references to its contract as WTI, preferring to see it called NYMEX Division light, sweet. In contrast, the IPE specifically refers to its contract as Brent, but daily settlement is in cash, not in oil, and the Brent that is generally used as a contract reference is the dated physical and forward paper markets.

The bulk of open-market market transactions are centered around the primary four benchmark crudes: WTI, Brent, Dubai, and Malaysian Tapis. The other 40-plus satellite crudes monitored by the cash pricing services are substantially less liquid and the vast majority of quoted prices are derived from "assessments" in an absence of spot deals. Outside the array of so-called commercial crudes monitored by the trade press, there are scores of other secondary grades priced by producers in a variety of fashions. The largest category of such non-spot grades is in the U.S. where a system of buyer "postings" has been used for pricing purposes for decades.

The prices "posted" typically reflect a location and timing difference between the Cushing, Oklahoma, basis of the NYMEX Division futures front month futures quote. Posted prices usually are changed in 25¢ per barrel increments in response to the New York futures moves. The "posting-plus" domestic crude business enables buyers and sellers to agree to an open market premium or discount to the posted price established by a specific oil company posting or perhaps an average of several company postings. This multi-tiered pricing technique allows for prices of a given crude, in say Kansas or West Texas, to track both the NYMEX Division crude futures (more or less) and the posted market for the locale where it is produced.

WTI is the undeniable benchmark crude in the U.S. market, a position that is enhanced by the futures contract, which the oil trade considers to be WTI for all practical purposes; Brent is the benchmark for North Sea and African sweet crude oils. At the beginning of 1994, Saudi Arabia changed the price indexing of its crude bound for the huge United States market from Alaska North Slope crude to the end-of-day WTI quotes reported by *Platt's Price Service*, which is generally a reflection of the day's trading on the futures markets.

Ultimately, after the 1986 netback price debacle, Middle Eastern producers gave up trying to administer prices and opted to become market followers. Saudi Arabia eschewed the benchmark role, and took steps to forbid resale of its crudes by its primary offtakes, and the large scale marketplace for Mideast oil simply dried up. Geographically nearby Dubai crude—reasonably comparable to Arabian Light—assumed a benchmark formula price role by default. The volume available is small at roughly 300,000 barrels per day. The Dubai yardstick is usually part of a formula basket for Far East-oriented grades along with Oman crude—which suffers from even less liquidity than Dubai.

Local Asian crudes fall into two broad categories: light low-sulfur distillate-rich crudes led by Malaysian Tapis, and electric utility crudes led by waxy Indonesian grades. The regional benchmark—such as it is—is presently Tapis crude. Market values for Tapis generally reflect local, Far East market conditions, though values also must be assessed in the context of spread relationships with distant crudes like Brent and WTI. The physical underpinnings, as with Dubai, are on the slim side in terms of liquidity and availability, but a forward paper market is growing. Malaysian state oil firm Petronas has not encouraged use of the crude for a benchmark, and the

addition of new local refining facilities is tightening physical availabilities. Indonesian Minas crude is the region's traditional benchmark, but the changing production profile has reduced its importance.

To a certain degree, both Dubai and Tapis do track the "world" futures price. For example, the typical process for a Singapore oil trader to set daily price parameters before the opening of the local trading day is to look at the overnight quoted for the NYMEX Division light, sweet futures on NYMEX ACCESS<sup>SM</sup>, the Exchange's after-hours electronic trading system, then look at the New York closing of the Brent/WTI spread, and derive an "adjusted" Brent value. Then the last known Brent/Dubai spread would be added on to derive an adjusted Dubai value. A Tapis value would be "bridged" in a similar fashion.

The "price" of crude—whether it is \$15 or \$16 or \$20 a barrel is obviously vital to many. The producing nations care, since the national oil income reflects the sum of oil price times oil volume. The consuming nations care, because the cost of energy, operating an economy, the balance of trade, etc., all depend on the world oil price. The oil exploration and producing companies care, since their profits all depend to a great degree on the simple outright price. For some of the largest futures market participants, however, who by virtue of the depth of their aggregate participation play a key role in determining day-to-day prices, the outright price is not as important as the difference between the purchase price, or cost, of crude oil and the sales price of refined products. Refiners, for example, live and die by this difference. As long as they can obtain crude oil at the cheapest possible price versus the market, and sell products at a decent profit, the actual price of purchase and sale is not significant to them.

The oil trading community (both on and off Wall Street), the marketers, and even the trading desks at primary oil companies all work on the margin nowadays. They are geared to earn a profit on a transaction, hedging risks, and generating a return on each deal, whether they go long or short, forward or prompt. Given these economic imperatives, the oil trade is active in numerous "spread" or price relationship transactions in which the full outright or flat price is of lesser importance.

A substantial portion of today's oil trade consists of taking a position on the "time spread" either buying a spread (going long) or selling a spread (going short). While cash market spreads are bought and sold as such, these transactions are ultimately achieved by laying off a position on the futures market. Thus these timing positions ultimately effect the outright price line on the screen, but only indirectly.

#### Timing Differences

The commodity-driven crude oil markets are subject to fluctuation throughout the day with each tick of the futures screen. The assessments of the cash market reporting services are made at various times. Most contract linkages are tied to the close or settlement price, and it is these numbers which are typically incorporated in the historical pricing series databases. Given the 24-hour nature of the oil markets, however, there are now multiple regional closing assessments in Asia, Europe, and the United States that are tracked by pricing services. In addition, some are doing mid-day assessments, and the screen services are updating more frequently. For purposes of our tracking, we have included multiple regional closing numbers where the pricing services made them available. In reviewing the cash market quotes, we find that some of the largest differences in quotations for individual

crudes reflect the varying "time stamps" put on the price assessments.

The timing of a market assessment is critical now that oil trades virtually 24 hours a day. Generally, formula mechanisms are based on closing quotes or transactions for a specific time window. The time windows can be such that many real market transactions may be excluded from consideration in the daily price determination process. Deals that occur early in the day may not be given equal weight to business conducted during the closing cycle of the market.

### **The Platts Time Window (MOPS)**

Timing is of such importance that a separate class of transactions sometimes occurs during the time frames when some price services (prominently *Platt's* with regard to Brent) are compiling information for the day's quotes. Although *Platt's Oilgram* "covers" the markets all day long, the selection of the primary published quote occurs within a specified 3:30 P.M. to 4:00 P.M. (New York time) window. Deals done to fit that window are known as "MOPS," that is "Mean of Platt's" business. There is wet barrel dated Brent business done through the trading day, but late each day after the NYMEX Division and IPE markets close, attention specifically focuses to MOPS business in the cash market.

The stakes are high. News of the MOPS deals inevitably gets to the *Platt's* reporters, complicating the assessment process, as there are undoubtedly times when the primary motivation for a deal is to "push" the published *Platt's* number up or down. For all practical purposes, the deals done during MOPS time ultimately peg the "mean" of *Platt's* for Dated Brent crude.

To market participants working in Europe, and probably anywhere else, it is nonsense for the 15-day Brent

price to be determined in a 30-minute New York time window when the London market is shut and fewer players are working. The price behavior in this period does damage to the credibility of the market and invites sanction.

### **The Futures Time Window**

The timing of the price pegging process is also relevant to the oil futures markets. Trade goes on all day, with prices varying, but the settlement price is generally the one that is accorded the most attention. Unlike the *Platt's*-oriented cash market MOPS trade, the futures markets provide a substantial window on volume of business done through the day.

The NYMEX Division light, sweet contract trades literally around the clock. After the Exchange's trading floor closes in mid-afternoon, trading picks up again on NYMEX ACCESS<sup>SM</sup> at 4 P.M., New York time, continues throughout the afternoon and night, until 8 a.m. the following day, less than two hours before the open outcry session resumes. In the nearly four years since the electronic trading system went on line, a pattern has emerged with the heaviest trading volumes in the initial four hours of the NYMEX ACCESS<sup>SM</sup> session when the western United States is still in its business day, and in the last four hours of the electronic session in New York, which covers the morning IPE trading in London.

After-hours trading in NYMEX Division light, sweet crude futures is liquid with trading averaging about 2,200 crude oil futures in the overnight session, although 4,000 and 5,000-contract sessions are not uncommon.

NYMEX ACCESS<sup>SM</sup> trading can also be conducted directly from London where terminals are in place, and from Sydney, through the terminals of the Sydney Futures Exchange's SYCOM electronic trad-

ing system. The NYMEX ACCESS<sup>SM</sup> session encompasses the Sydney business day, and trading activity conducted directly from Sydney, while small in absolute terms, has been steadily growing. During the first quarter of 1997, another window will open on the New York futures market from the Asia-Pacific, when traders at the Hong Kong Futures Exchange will also have direct admittance to NYMEX ACCESS<sup>SM</sup>.

Some noise has been made about the volatility and pressures on the futures price near closing time, but the trade on the floor is visible, and far easier to monitor than the opaque MOPS cycle. The London futures market provides an interesting insight into assessing the full scope of daily activity in compiling its Brent index. Unlike the straightforward NYMEX Division futures settlement, or the cash market closing assessments of the trade press, the IPE tracks the confirmed Brent deals reported by a cross-section of the cash services. It averages these deal prices to compile its index.

While the futures markets may be especially volatile at certain times of month, or in periods of upheaval, when one is looking at formula contract prices over time, these forces are less significant.

### **Futures Set World Price Baseline**

The published cash market quotes almost universally used in crude oil contract formulas are essentially a proxy for the baseline level of global oil prices that are determined by the futures market.

We believe this approach is best because it isolates the difference in the market price of each crude and the more widely traded yardstick grades. It is this difference that represents the actual value being defined by the trade press. By isolating this value, the services are compared to

each other quite simply and, given the smaller size of the finite price, the variations are more obvious and clear-cut.

For example, an \$18 per-barrel total crude oil price for an individual grade reported by a pricing service may in reality consist of a \$17.50 a barrel benchmark futures quote, and a plus 50¢ spread differential evident on the cash market. The pricing service is thus really defining whether the spread is 45¢, or 52¢, or 56¢. The underlying market is defined by exchange-traded transactions, which accounts for 97% of the total price. The futures quote may drop 30¢ between Monday and Tuesday, whereas the spread may still be in the area of 50¢ or so. As the \$18 total price drops to \$17.70 on Tuesday, it is only reflective of a futures market drop, with the cash market price assessment of the spread unchanged.

This means that the formula contract price which is linked to the cash market on the surface is in reality tracking the futures market more than anything else. The amount of these spread differentials vary over time according to market conditions, location, and numerous other factors already discussed, and may be considerable. Nonetheless, they are still a relatively small component of the aggregate price of oil.

### Atlantic Basin Benchmarks

Outright pricing simply does not exist in the bulk of Atlantic Basin oil market transactions without reference to the futures markets. The NYMEX Division and IPE screen quotes represent a very real price starting point that has direct regional relevance in the U.S. and Europe. A whole series of satellite price references have evolved in the US and Europe for various secondary crude grades.

Both WTI and Brent (and thus the NYMEX Division & IPE) prices can be subject to parochial and

regional events that may put them out-of-sync with the overall market situation for brief periods of time. NYMEX Division light, sweet (and thus Cushing, Oklahoma) values can be influenced by events in the interior U.S. mid-continent market that don't necessarily affect other markets. Similarly, Brent is subject to weather disruptions, seasonal maintenance, and other dislocations that can radically alter prices, while the baseline world market is unchanged.

### Bridges To Liquid Markets

Despite the underlying disconnection of the Far East from the Atlantic Basin arena much of the time, a growing number of local Asian market participants are becoming active in trade that is linked to the other distant benchmarks (WTI, Brent, and Dubai). Singapore and other Asian market centers trade Dubai and Tapis instruments between the time the trading floor in New York closes and London opens, although with a liquid, transparent WTI-based market trading via NYMEX ACCESS<sup>SM</sup>, including the small but growing direct business from Sydney, and the coming trading gateway in Hong Kong, a growing benchmark role of the NYMEX Division light, sweet crude contract has been seen in the region.

At the start of each trading day, the East of Suez markets in fact now define the "opening" prices based on Atlantic Basin values. In assessing values, eastern participants look at the after-hours NYMEX ACCESS<sup>SM</sup> quote for WTI. They use the last known WTI/Brent spread to peg a Brent value, and the last known Brent/Dubai spread to set an "updated" Dubai value. The forward values for Dubai are then pegged using last known time spreads. The previous day's values for paper Tapis are then also revised off of the updated Brent/WTI/Dubai numbers to provide a starting point for the new day.

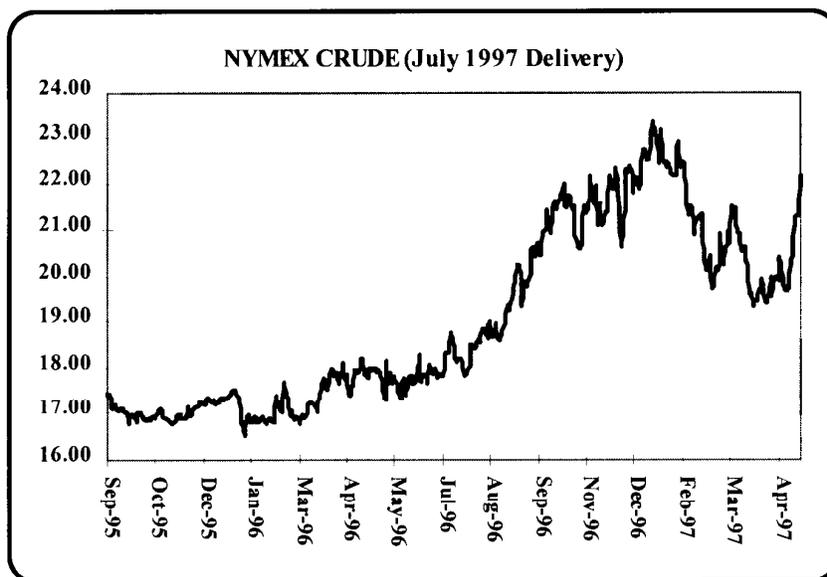
Thus the Asia-Pacific market takes its pricing cues from WTI and Brent. During the window between the close of the extremely liquid open outcry trading session in New York, and the London open, the global commodity crude prices — such as they are — are set in the Far East, with traders keeping a careful eye on the overnight NYMEX Division crude oil activity on NYMEX ACCESS<sup>SM</sup>. The liquidity of overnight trading in the NYMEX Division light, sweet crude contract has grown consistently since its inception three-and-a-half years ago, and it is not unreasonable to expect this to continue, especially with the opening of direct trading links to Asian market centers that have strong entrepreneurial traditions. Price discovery on the Exchange is open and straightforward, purely a matter of buyers and sellers looking for the best quotations. Liquidity and transparency are what benchmarks are made of: the most successful typically feature an active cash and futures market operating side-by-side, with the price discovery process involving both the exchange, as well as the industry trade press and/or pricing panels. ■

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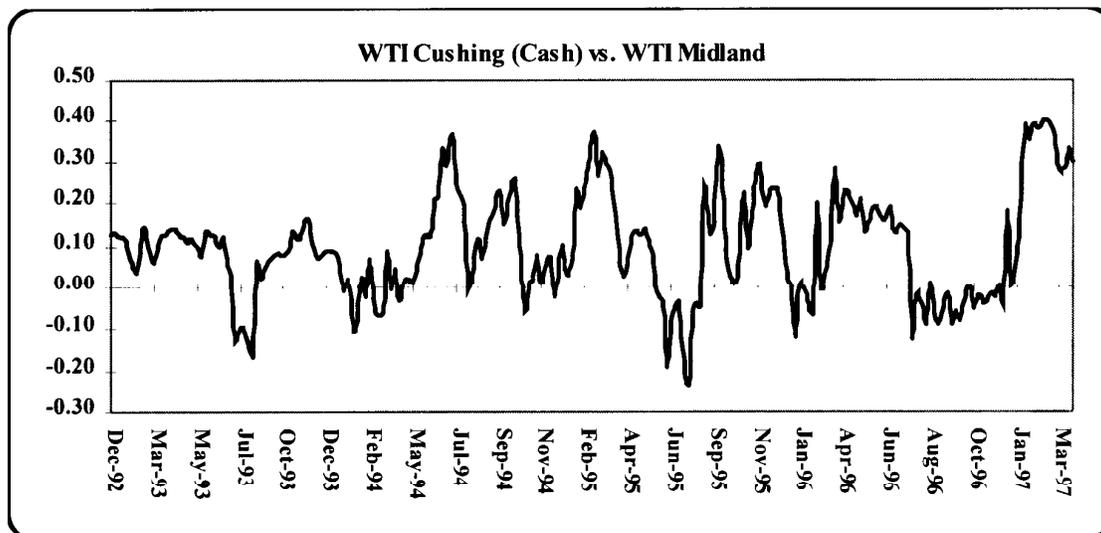
*Marshall Thomas is a leading oil market and pricing analyst, and active in the petroleum industry since 1967. He is senior vice president of PVM Oil Consultants, Inc., an affiliate of the major international oil brokerage firm, PVM Oil Associates, Inc. The firm has offices in New York, Houston, Los Angeles, London, Vienna, Singapore, and Tokyo.*

*Among its many activities, PVM maintains a huge database of U.S. domestic and international cash crude oil transactions, and long and short cash positions, dating back to the early 1980s. The firm also monitors the volume of waterborne crude oil movements in global trade each week.*

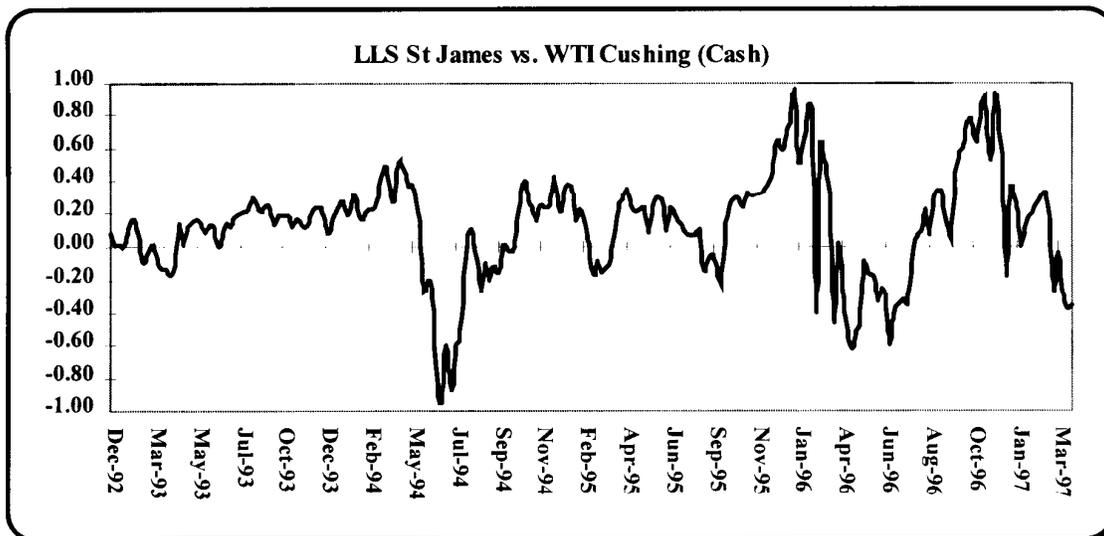
**GRAPH 1 - NYMEX Crude (July 1997 Delivery)**



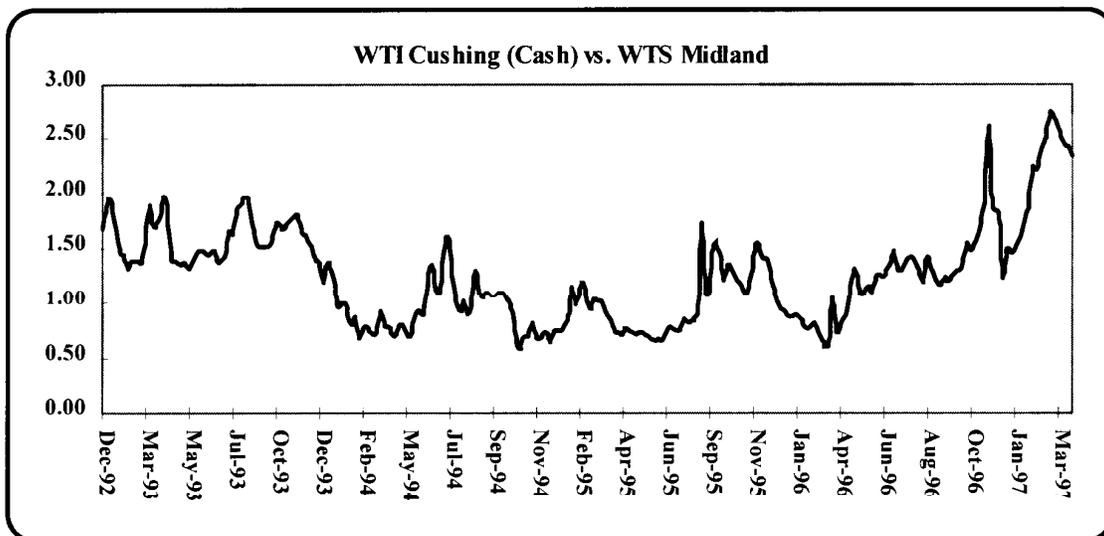
**GRAPH 2 - WTI Cushing (Cash) vs. WTI Midland**



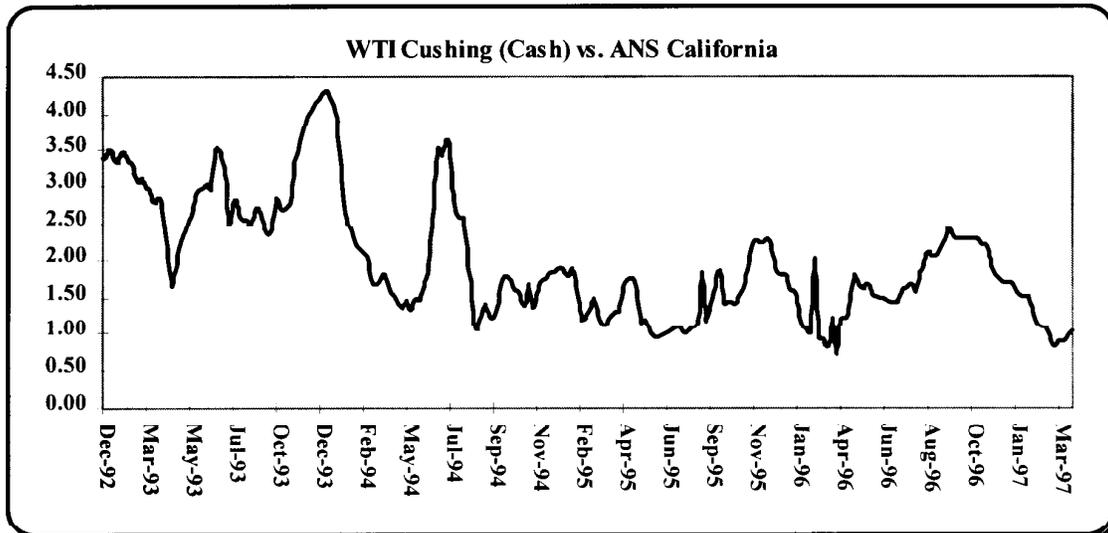
GRAPH 3 - LLS St. James vs. WTI Cushing (Cash)



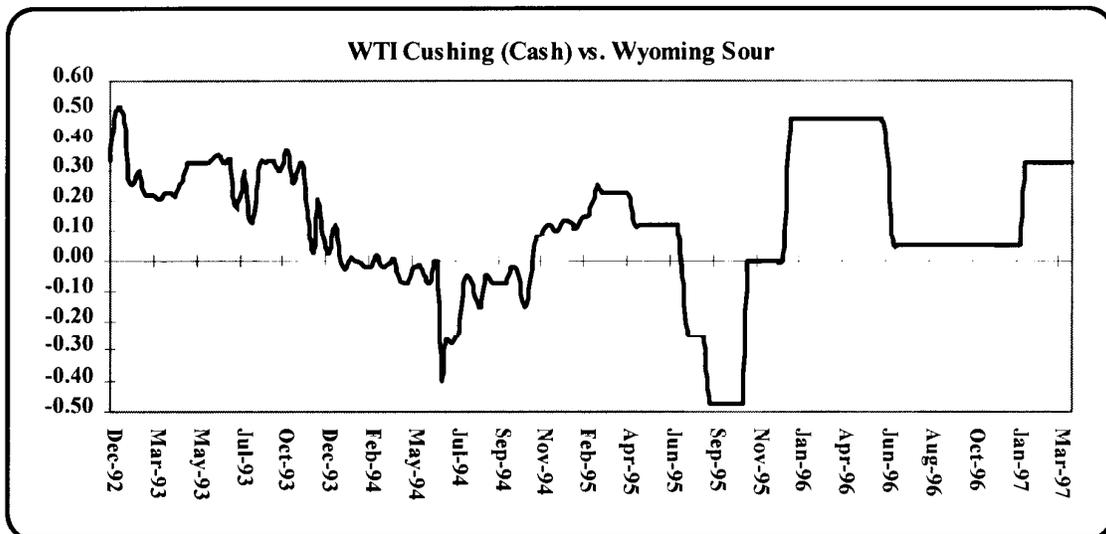
GRAPH 4 - WTI Cushing (Cash) vs. WTS Midland



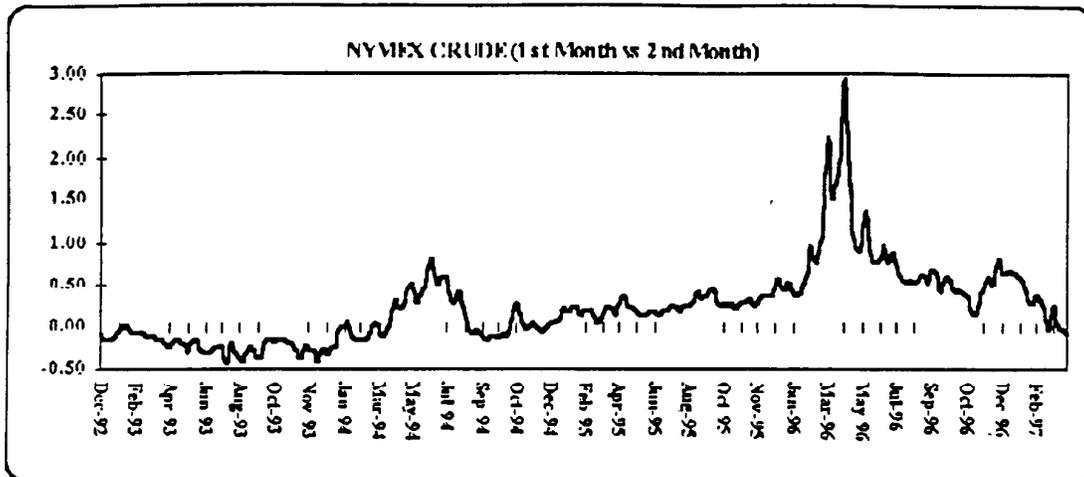
**GRAPH 5 -- WTI Cushing (Cash) vs. ANS California**



**GRAPH 6 -- WTI Cushing (Cash) vs. Wyoming Sour**



**GRAPH 7 - NYMEX Crude Futures  
(1st Month vs. 2nd Month)**



#### INTRODUCTION

The comments that follow in the detailed sections on specifications are intended as a guide to the basic parameters of Platt's assessments. They should only be read as an aid to interpreting Platt's assessments. It should also be noted that specifications may be altered in the future as trading patterns change.

There are general principles that underlie Platt's approach to market reporting. For example, Platt's generally looks for fixed-price spot transactions, confirmed bids and offers, market talk and relationships, if any, with other markets. Platt's reporters also generally look at the characteristics of individual markets and the foregoing methodology may be adapted especially in cases where fixed-price liquidity is lacking.

Assessments are always based on information available at the time of publication. Retroactive corrections will only be made thereafter when typographical errors, computer problems and the like have occurred. Retroactive corrections will not be made where new market information subsequently comes to light.

Platt's neither encourages nor solicits companies or individuals to use its price data in contractual arrangements.

Attachment H

Memorandum from MMS Director,  
Cynthia Quarterman, to  
Assistant Secretary,  
Land and Minerals Management,  
dated May 31, 1996.



# United States Department of the Interior

MINERALS MANAGEMENT SERVICE  
Washington, DC 20240

MAY 31 1996

## Memorandum

**To:** Assistant Secretary, Land and Minerals Management

**From:** Cynthia Quarterman                      Cynthia Quarterman  
Director, Minerals Management Service

**Subject:** April 4, 1996, Letter from Congresswoman Carolyn B. Maloney

In a letter of April 4, 1996, Congresswoman Carolyn B. Maloney asked that the Minerals Management Service (MMS) look into the contract and invoices between Tosco Corporation and Texaco as a possible example that oil companies are not making the correct oil royalty payments to the Federal Government. In the course of MMS audit work investigating allegations of underpricing of crude oil in California, auditors examined Texaco sales for 1989 and 1993. The MMS auditors have identified a small amount of Texaco's production (6,700 barrels per day) that was sold to Tosco in November 1993. Tosco paid more than posted price for this oil; however, part of the incremental value may relate to transportation costs. MMS considers these payments above postings to be a combination of transportation costs and premiums. Texaco will have the opportunity to explain these payments above postings costs in the audit review process.

The letter also requested that we compare the price of oil produced from the Elk Hills Naval Petroleum Reserve (Elk Hills) with that of privately-owned oil and gas producers. The letter stated that Elk Hills would have the correct posted price. However, there is no posted price for crude oil produced from the Elk Hills field. There are a number of postings for other nearby San Joaquin Valley fields (e.g., Midway-Sunset, Buena Vista, Lost Hills, etc). The value of the Elk Hills crude oil is determined based on a sealed bid using posted prices as the base price. Elk Hills almost always receives a premium above posted price.

According to Innovation and Information Consultants (IIC), a consultant we hired on the California undervaluation issue, the average premium above bid minimum "base price" (based on the three highest postings in nearby fields) for Elk Hills production in 1984 was \$1.81/bbl. Also, the average Elk Hills premium over a local posting was \$0.39/bbl in 1989. Elk Hills oil is a higher quality crude (27-35 degrees API), which is more desirable for mixing with other crudes during transportation than the heavy crudes predominantly found in the San Joaquin Valley. This quality can avoid the need to access the few, more expensive heated pipelines available to transport heavy crude. Thus, any comparison to Elk Hill crude oil prices must consider its advantage in blending with various crudes as well as the quality adjustment for its relative gravity.

While we have examined information regarding Elk Hills pricing during our study, a comparison of the price of oil produced from Elk Hills to the royalty value of crude oil from Federal leases is not necessarily meaningful. The Elk Hills crude is in high demand in the San Joaquin Valley because it is much lighter than other crude in that area and can be used for blending. Finally, Elk Hills crude comprises a large portion of the limited amount of crude oil available to small refiners on the open market in California; therefore, it commands a higher price.

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COMMITTEE ON BANKING AND  
FINANCIAL SERVICES

COMMITTEE ON GOVERNMENT  
REFORM AND OVERSIGHT



**Congress of the United States**  
**House of Representatives**  
**Washington, DC 20515-3214**

March 18, 1996

The Honorable Bruce Babbitt  
Secretary  
U.S. Department of Interior  
1849 C Street, NW  
Washington, DC 20240

Dear Secretary Babbitt,

I am respectfully writing to urge you to take action regarding the potentially large debt owed to the Department of Interior. I have received reports from the Departments of Interior, Commerce and Energy and the Project on Government Oversight that oil companies have underpaid the Minerals Management Service billions of dollars over the last decade in royalty payments. In this time of fiscal restraint, the federal government cannot afford to give handouts to a few corporations at the expense of the rest of the population. These oil companies must pay their fair share of royalties to the Federal government in exchange for the right to drill for oil on federal land.

As the ranking member of the House Subcommittee on Government Management, Information, and Technology, I began investigating the delinquent debt of all Federal agencies. Last May, I surveyed 100 Federal agencies including the Department of Interior about their debt collection practices. I then released a report which concluded that individuals, businesses and foreign governments owe the U.S. government \$55 billion in delinquent debt. Your agency reported a debt of \$388 million.

My report focused on reported debt. However, the evidence I have received to date suggests that the Department of Interior's debt maybe substantially larger. According to a Department of Interior internal options paper, a handful of oil companies in California owe \$856 million in oil royalty payments for the years 1986 to 1993. This amount is in addition to the \$388 million that your agency reported to me. I also understand that the Department of Interior has been aware of this debt for some time:

- In 1986, the attorneys for the City of Long Beach and the State of California alerted the Department of Interior that oil companies were consistently undervaluing crude oil prices in California.

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 110 EAST 59TH STREET  
2ND FLOOR  
NEW YORK, NY 10022  
(212) 832-6631  
 28-11 ASTORIA BLVD.  
ASTORIA, NY 11102  
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(718) 348-1280

- In 1988, the General Accounting Office found that crude oil prices in California were 20% below market value, yet the average price of refined oil products was comparable to the rest of the United States.
- In 1993, the Department of Interior's Office of Policy Analysis recommended that the Department initiate collection procedures to collect the unpaid royalties.
- In 1994, the Department of Commerce representative on the Interagency Task Force on California Valuation recommended that the Minerals Management Services "do something now to avoid creating the impression that these events have not occurred."
- In 1994, the Department of Energy confirmed that the General Accounting Office's findings that crude oil prices in California were low. The Department of Energy found that the margins between crude oil prices and refined product prices were \$2.40 per barrel higher than the national average.

Clearly, this evidence shows that we need to take quick action. As such, I urge you to take immediate steps to audit these oil companies and begin collecting the underpaid royalties. The Department of Interior has been forced to make large budget cuts at the expense of important programs. Therefore, I believe that we should collect what corporations owe us first before we cut vital government programs and services.

I hope you can inform me of a timetable of when you plan to begin collecting this debt. I will be happy to meet with you and your staff to discuss this issue. I greatly appreciate your assistance with this matter.

Sincerely,



**CAROLYN B. MALONEY**  
Member of Congress

Attachment I

**NYMEX Internet Documents**



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# New York Mercantile Exchange

*NYMEX/COMEX. Two divisions, one marketplace*

## Light, Sweet Crude Oil

### ⦿ Contract Specifications ⦿

Crude oil is the world's most actively traded commodity. Over the past decade, the NYMEX Division light, sweet (low-sulfur) crude oil futures contract has become the world's most liquid forum for crude oil trading, as well as the world's largest-volume futures contract trading on a physical commodity. Because of its excellent liquidity and price transparency, the contract is used as a principal international pricing benchmark.

The contract's delivery point is Cushing, Oklahoma, the nexus of spot market trading in the United States, which is also accessible to the international spot markets via pipelines. By providing for delivery of several grades of domestic and internationally traded foreign crudes, the futures contract is designed to serve the diverse needs of the physical market.

Light, sweet crudes are preferred by refiners because of their relatively high yields of high-value products such as gasoline, diesel fuel, heating oil, and jet fuel.



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**New York  
Mercantile Exchange**

*NYMEX/COMEX. Two divisions. one marketplace*

**NYMEX Division  
Light, Sweet Crude Oil Futures and Options  
Contract Specifications**

**Trading Unit**

Futures: 1,000 U.S. barrels (42,000 gallons).

Options: One NYMEX Division light, sweet crude oil futures contract.

**Trading Hours**

Futures and Options: 9:45 A.M. - 3:10 P.M., for the open outcry session. After-hours trading is conducted via the NYMEX ACCESS® electronic trading system starting at 4 P.M. on Monday through Thursday, and concluding at 8 A.M. On Sunday, the electronic session begins at 7 P.M. All times are New York time.

**Trading Months**

Futures: 30 consecutive months plus long-dated futures which are initially listed 36th, 48th, 60th, 72nd, and 84th months prior to delivery.

Additionally, trading can be executed at an average differential to the previous day's settlement prices for periods of two to 30 consecutive months in a single transaction. These calendar strips are executed during open outcry trading hours.

Options: Twelve consecutive months, plus three long-dated options at 18, 24, and 36 months out on a June - December cycle.

**Price Quotation**

Futures and Options: Dollars and cents per barrel.

**Minimum Price Fluctuation**

Futures and Options: \$.01 (1¢) per barrel (\$10 per contract).

**Maximum Daily Price Fluctuation**

Futures: \$15.00 per barrel (\$15,000 per contract) for the first two contract months. Initial back month limits of \$1.50 per barrel rise to \$3.00 per barrel if the previous day's settlement price in any back month

is at the \$1.50 limit. In the event of a \$7.50 per barrel move in either of the first two contract months, back month limits are expanded to \$7.50 per barrel from the limit in place in the direction of the move.  
Options: No price limits.

### **Last Trading Day**

Futures: Trading terminates at the close of business on the third business day prior to the 25th calendar day of the month preceding the delivery month.

Options: Beginning with the August 1997 contract, trading will end three business days before the underlying futures contract. All prior contracts, as well as the December 1997, June 1998, and December 1998 contracts already listed as long-dated options, expire on the Friday before the termination of futures trading, unless there are less than three trading days left to futures termination, in which case, options expire two Fridays before the futures contract.

### **Exercise of Options**

By a clearing member to the Exchange clearinghouse not later than 5:30 P.M., or 45 minutes after the underlying futures settlement price is posted, whichever is later, on any day up to and including the option's expiration.

### **Option Strike Prices**

At all times at least 21 strike prices are available. The first nine strike prices are increments of \$0.50 (50¢) per barrel, and the next three are in increments of \$1 per barrel. Additionally, three strike prices are offered in the nearest \$5 increments above the furthest higher and below the furthest lower existing strike prices. The at-the-money strike price is nearest to the previous day's close of the underlying futures contract. Strike price boundaries are adjusted according to the futures price movements.

### **Delivery**

F.O.B. seller's facility, Cushing, Oklahoma, at any pipeline or storage facility with pipeline access to Arco, Cushing storage, or Texaco Trading and Transportation Inc., by in-tank transfer, in-line transfer, book-out, or inter-facility transfer (pumpover).

### **Delivery Period**

All deliveries are rateable over the course of the month and must be initiated on or after the first calendar day and completed by the last calendar day of the delivery month.

### **Alternate Delivery Procedure (ADP)**

An Alternate Delivery Procedure is available to buyers and sellers who have been matched by the Exchange subsequent to the termination of trading in the spot month contract. If buyer and seller agree to consummate delivery under terms different from those prescribed in the contract specifications, they may proceed on that basis after submitting a notice of their intention to the Exchange.

### **Exchange of Futures for, or in Connection with, Physicals (EFP)**

The commercial buyer or seller may exchange a futures position for a physical position of equal quantity by submitting a notice to the Exchange. EFPs may be used to either initiate or liquidate a futures position.

### **Deliverable Grades**

Specific domestic crudes with 0.42% sulfur by weight or less, not less than 37 degrees API gravity nor more than 42 degrees API gravity. The following domestic crude streams are deliverable: West Texas Intermediate, Low Sweet Mix, New Mexican Sweet, North Texas Sweet, Oklahoma Sweet, South Texas Sweet.

Specific foreign crudes of not less than 34 degrees API nor more than 42 degrees API. The following foreign streams are deliverable: U.K. Brent and Norwegian Oseberg Blend, for which the seller shall receive a 30¢-per-barrel discount below the settlement price; Forties\* is delivered at a 35¢ discount; and Nigerian Bonny Light\* and Cusiana\* are delivered at 40¢ and 15¢ premiums respectively to the final settlement price; for which the seller shall receive a 60¢-per-barrel premium.

\*Commencing with the July 1997 futures contract.

### **Inspection**

Inspection shall be conducted in accordance with pipeline practices. A buyer or seller may appoint an inspector to inspect the quality of oil delivered. However, the buyer or seller who requests the inspection will bear its costs and will notify the other party of the transaction that the inspection will occur.

### **Position Limits**

15,000 contracts for all months combined, but not to exceed 1,000 in the last three days of the delivery month or 7,500 in any one month.

### **Margin Requirements**

Margins are required for open futures or short options positions. The margin requirement for an options purchaser will never exceed the premium.

### **Trading Symbol**

Futures: CL

Options: LO



Why do They Need  
to Yell and Make  
Funny Gestures?



...And what is a  
commodities exchange,  
anyway?

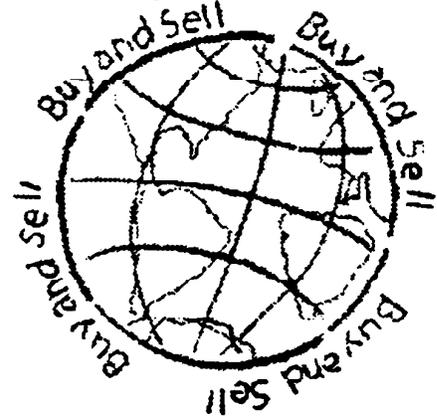
What's New • Contract Specs • Charts & Data • Exchange Information

# Buy and Sell

three little words that make the world go round.

Each day, billions of dollars worth of energy products, precious metals, and other commodities are bought and sold on the trading floor of the New York Mercantile Exchange. And, shortly after the trading floor closes, overnight electronic trading picks up. That's because night and day, minute by minute, the value of these strategic commodities are changing, and those changes can have an effect on everything from the price you pay for gasoline at the pump to the cost of the copper tubing the plumber replaces after your pipes freeze in the winter.

The prices quoted for transactions on the Exchange are the basis for the prices that people throughout the United States and in many other countries pay for crude oil, heating oil, gasoline, natural gas, propane, gold, silver, platinum, palladium, and copper. Trading is also conducted in the Eurotop 100\*, a European stock index.



Yet the buying and selling on the Exchange occurs amid the winding streets of the oldest section of New York, with nary an oil well or copper mine in sight. In fact, the many thousands of transactions conducted on the Exchange each day are accomplished without the participants ever seeing a gallon of heating oil or a bar of silver. If you visit the Exchange trading floor, you won't find samples of metal or barrels of oil scattered about, but you will see a lot of people standing in circles yelling at each other.

How can that be? How does the New York Mercantile Exchange work? What's all that shouting about? And what is a commodities exchange, anyway?

## Last Questions First

Starting around the middle of the 19th century in the United States, businessmen began organizing market forums to make the buying and selling of commodities easier. These central marketplaces provided a place for buyers and sellers - such as farmers and grain dealers - to meet, set quality and quantity standards, and establish rules of business. Over a period of about 50 years - from the mid- to late-19th century - about 1,600 exchanges had sprung up across the United States, mostly at major railheads, inland water ports, and seaports.

Agricultural commodities were the most commonly traded, but a market will flourish for almost any commodity as long as there is an active pool of buyers and sellers. There is no telling what will lubricate the wheels of commerce - cat pelts were once a hot item in St. Louis, and today dried cocoons are a major exchange-traded commodity in Japan.



In 1872, a group of Manhattan dairy merchants got together to bring some order to the chaotic conditions that were prevalent in the New York markets. The city had the nation's most poorly organized and least economical system for the storage, pricing, and transfer of agricultural products. The merchants hoped that the newly established Butter and Cheese Exchange of New York would improve the efficiency of the marketplace.

Within a few years, the egg trade became an important part of the business conducted on the Exchange, and the name was modified to the Butter, Cheese and Egg Exchange. Efforts were also made to attract traders of groceries, dried fruits, canned goods, and poultry, and, in 1882, the name was changed again, to the New York Mercantile Exchange.

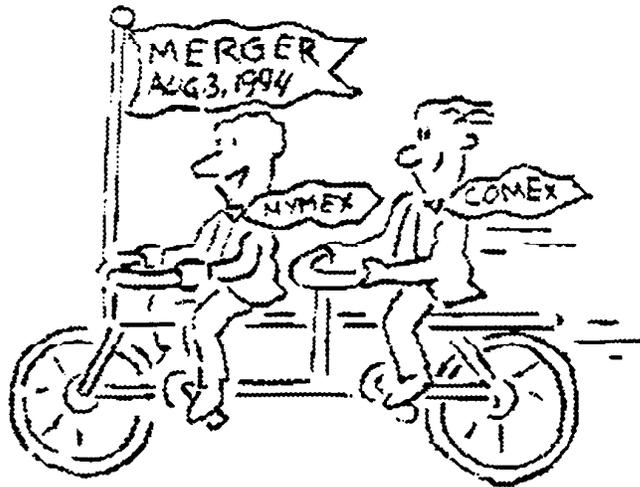
As communications and transportation became more efficient in the early 20th Century, as centralized warehouses were built in principal market centers such as New York and Chicago that could be used to distribute goods more economically, and, as business expanded to become more national than regional, there wasn't a need for so many exchanges. The exchanges in the smaller cities began to disappear, while the competition in larger markets led to the consolidation of many big-city exchanges.



In 1933, during the Great Depression, the Commodity Exchange, Inc., was established in New York through the merger of four small exchanges - the National Metal Exchange, the Rubber Exchange of New York, the National Raw Silk Exchange, and the New York Hide Exchange. A variety of commodities were traded on the new exchange: copper, hides, rubber, silk, silver, and tin. Because of the national economic crisis at the time, the use of gold as money in the United States had been discontinued shortly before COMEX was founded. Private ownership of the metal was forbidden until December 31, 1974, when the restrictions were lifted, and gold finally opened for trading on COMEX.

On August 3, 1994, New York's two largest exchanges, the New York Mercantile Exchange and the

Commodity Exchange, merged to become the world's largest physical commodity futures exchange (more on futures in a minute). Trading is conducted through two divisions, the NYMEX Division on which crude oil, heating oil, gasoline, natural gas, propane, platinum, and palladium trade; and the COMEX Division on which gold, silver, copper, and the Eurotop 100 stock index trade.



Of the more than a thousand commodity exchanges that existed in the United States about 100 years ago, only nine exist today, although more than 400 million contracts are exchanged on their trading floors each year.

From Boxes, Barrels, and Bars to Paper Transactions

## From Boxes, Barrels, and Bars to paper transactions

Years ago, exchange trading largely resembled a Middle Eastern bazaar. Merchants offering their commodities for sale brought samples to the exchange. Buyers would come to the exchange to examine the quality of the offered merchandise and bid on supplies. Businessmen vied with other buyers or sellers, each trying to obtain the best price for their products or to buy at the most competitive price.



Today, physical supplies of the traded commodities are nowhere to be found in the offices of the New York Mercantile Exchange or on its trading floor. In fact, they are infrequently delivered through the Exchange at all, even though Exchange rules permit it. Instead the traders buy and sell on the Exchange through instruments called futures contracts.

A futures contract is a legally binding obligation for the holder of the contract to buy or sell a particular commodity at a specific price and location at a specific date in the future.

The contracts are standardized to make sure that the prices mean the same thing to everyone in the market; everyone trades contracts with the same specifications for quality, quantity, and delivery terms.

That way, if the price of heating oil is quoted on the exchange at 50¢ a gallon, everyone knows that's the wholesale price for delivery of a specific grade and quality of oil in New York Harbor, the specified location. No one can say later that they thought it was the price for Bridgeport.

Futures contracts are most widely used for hedging. Hedging allows someone to offset the risk of fluctuating prices when he buys or sells physical supplies of a commodity. For example, a copper mining company might sell a futures contract to lock in its sales price and protect its source of revenue should the market value of copper fall. (If copper prices rise instead, then the increased value of the physical metal offsets its loss on the futures contract). At the same time, a wire manufacturer who buys copper to use as a raw material in the production of wire might buy a copper futures contract to lock in his raw materials cost. (If the price of copper falls, the cost advantage gained by buying the actual copper at a lower price offsets his loss in the futures market.)

In both cases, the copper mining company and the wire manufacturer could, if they wished, hold their futures contracts until they expired, and then make or take delivery through the Exchange at a warehouse designated as an Exchange delivery location.

A point to remember: hedgers don't try to make a killing in the market. They use the futures to help stabilize their revenues or their costs. Speculators, on the other hand try to profit by buying low and selling high (or vice versa), taking a position in the futures market and hoping the market moves in their favor. Hedgers hold offsetting positions in the market for the physical commodity; speculators do not.

Some speculators study the trends of supply and demand (the fundamentals) of the underlying product to figure out which way the market will go. Others chart the movement of futures prices, often using computer programs to help them figure out the trends. Both types of speculators hope their price

projections are right.

Speculators also play an important role in the market by adding liquidity. They often take the opposite sides of the bids or offers that are in the market, ensuring that business will be done. Some exchange markets, such as those for stocks, use a system of brokers, also called specialists, who are required to trade certain stocks, ensuring there is a market for them. On the New York Mercantile Exchange, however, a trade will not be completed unless someone is willing to take the other side of a transaction.



It is also important to realize that the Exchange does not set the prices of the traded commodities. The prices are determined in an open and continuous auction on the Exchange floor by the members who are acting on behalf of their customers, the companies they represent, or themselves. The process of the auction is called open outcry. A strong or distinctive voice is a must for a trader.



A big difference between a typical auction, where a single auctioneer announces the bids, and the Exchange is that people are not only competing to buy but also to sell.

The wonderful thing about open outcry, which also contributes to its apparent chaos, is that only the best bid and offer are allowed to come forward. If a trader is willing to pay the highest price offered, he announces that to the other traders, and all lower bids are silenced. By Exchange rules and by law, no one can bid under a higher bid, and no one can offer to sell higher than someone else's lower offer. That keeps the

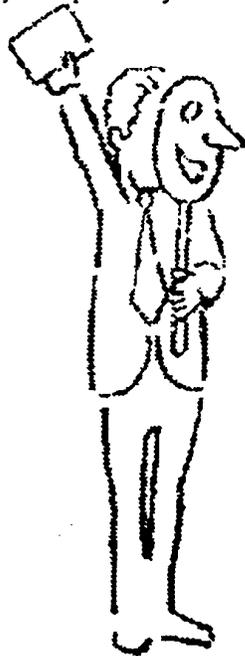
market as efficient as possible, and keeps the traders on their toes to make sure no one gets the purchase or sale before they do.

### What Determines the Direction of the Market?

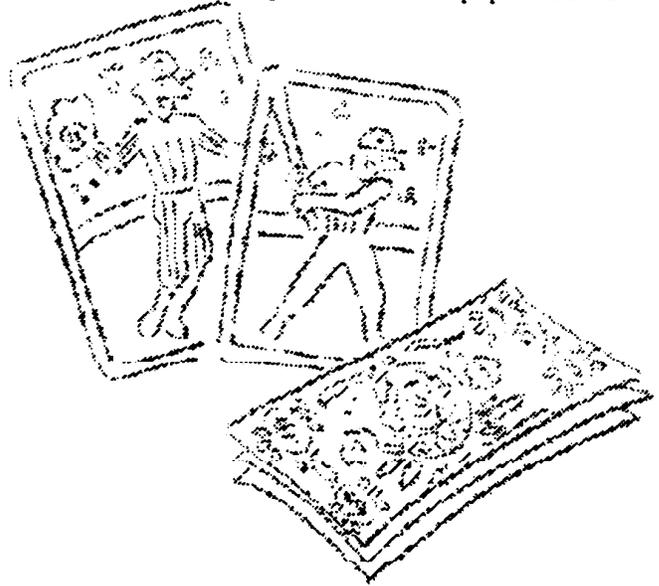
## What Determines the Direction of The Market ?

That's easy. If there are more buyers than sellers, demand is greater than supply and prices will tend to rise. If the opposite is true, prices will fall.

For example, suppose you are selling your baseball card collection. You put an ad in the paper and wait for the would-be customers to flock to your door. If a lot of people are interested in your collection, you'll probably be able to get your price. But if



very few show up, or if 20 other people are selling baseball card collections at the same time but only 10 collectors are interested in buying, chances are you'll have to cut your price to be competitive with the other sellers and to attract interest from the few buyers. The futures markets work the same way.



While each trader can see who the other floor trader is, customers remain anonymous. In fact, a customer who is seeking to take or liquidate a large position may act through several brokers so he does not tip his hand to his competitors. Of course, both the Exchange and the Commodity Futures Trading Commission (CFTC) are aware of the identity of anyone holding a substantial position.

This public, yet anonymous auction provides a readily available, widely accepted reference price for the underlying commodity, a process that is called price discovery because you can always discover the price.

### A Visit to the Trading Floor is not for the Faint-Hearted

## A Visit to the Trading Floor is not for the Faint-Hearted

Traders, many wearing jackets with distinctive colors, stand in the trading rings or pits on the trading floor which are arranged like little amphitheatres with wide steps descending to the center.

They gesture wildly as they bark cryptic buy and sell orders to their counterparts across the pit. Men and women clad in bright yellow jackets stand nearby and punch the keys of what look like hand-held video games, transmitting the price changes to the Exchange's computer system, and to the news wire services and information vendors who tell the rest of the world how the markets are doing.



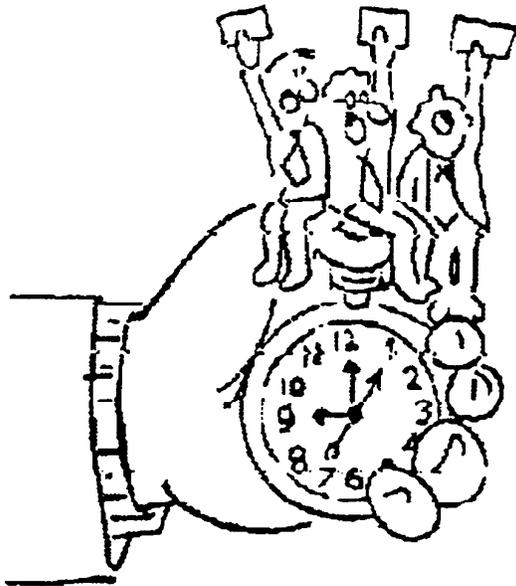
Still more people run back and forth through the narrow, crowded aisles, dodging tangles of telephone cord - the lifeblood of the Exchange. And dominating the entire scene are huge slate-gray wallboards that flash a never-ending series of numbers with no apparent cohesion at all.

The shouting, the wild gesturing, the jumping around so as to be seen better gives the trading floor a chaotic atmosphere. Does anyone know what's going on? If you look closely, you'll see that there is an exquisite order to this. Each individual, each hurried gesture, each piece of paper passed to a clerk, and each card with numbers written on it that is thrown into the center of the trading ring has a purpose.

The people running back and forth carry customers' orders from the clerks who receive them by telephone to the brokers in the trading ring, and then carry confirmations of the trades back to the telephone clerk.

The cryptic-sounding orders the brokers shout to each other is actually a language all its own that allows thousands or millions of dollars worth of gold and crude oil to change hands on a couple of words and a gesture.

The buyers determine how much they are willing to pay and announce their bids to the other brokers in the ring. Sellers cry out their offers. When the minds meet on price and quantity, the cry of "sold" or "done" is heard, and the trade is recorded.



Each broker wears a colored badge with a three or four-letter name that is used to identify him to the other brokers and exchange personnel. Some brokers also wear distinctive jackets so they can easily be found in the crowd of the trading floor. In fact, many firms require their employees to wear company jackets in order to expedite the handling of orders.

The heart of recording a trade on the NYMEX Division lies in the blizzard of pit cards tossed to the center of the rings. When a trade is executed, each selling broker must record each transaction on a card about the size of an index card which shows the commodity, quantity, delivery month, price, broker's badge name and that of the buyer. The pit card must be tossed into the center of the trading ring within one minute of the completion of a transaction.

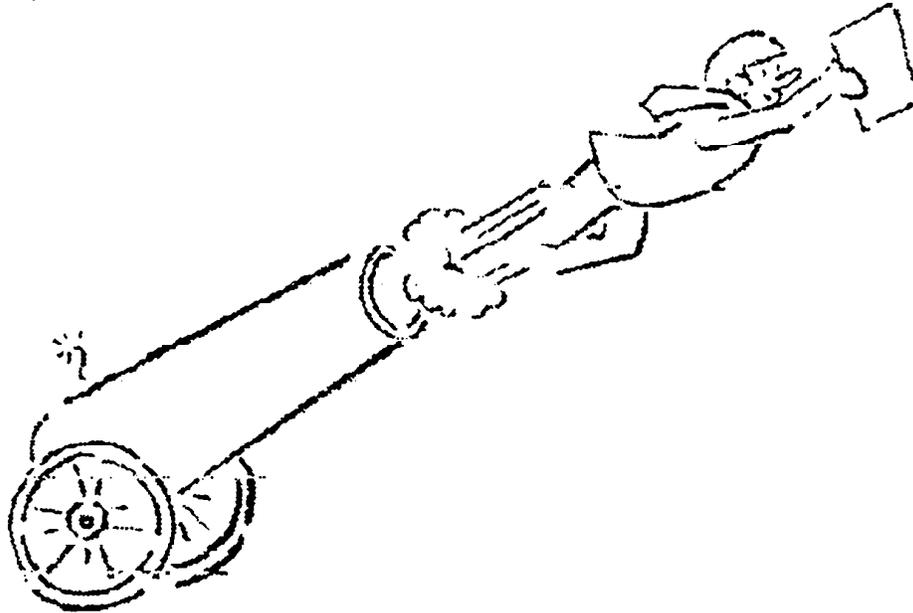
An exchange employee, the pit card clocker, who sits in the center of the trading ring, time-stamps the card which is then rushed to the data entry room, where operators key the data into the Exchange central computer system. When the Exchange employees use the hand-held devices to key a trade into the computer the first time for dissemination to news services, only the commodity, price, and delivery month are entered. Now, working from the pit card, the data entry clerks enter that information, along with the brokers' names and quantities involved, for the Exchange's internal records.

Both buyers and sellers on the NYMEX Division also fill out trading cards which are submitted to the Exchange at the end of the day. This system is the only dual audit trail that exists at any exchange.

On the COMEX Division, the price changes are keyed in by personnel in the trading ring, and cards are collected 15 minutes after the completion of each half-hour trading period.

If You Sell an Option, You Don't have a Choice.

# If You Sell an Option, You Don't have a Choice



After watching for a while, you can appreciate the tremendous speed with which buyers and sellers make their bids and offers, and the speed and accuracy with which the trades are executed. After all, about 1,000 contracts are bought and sold each minute.

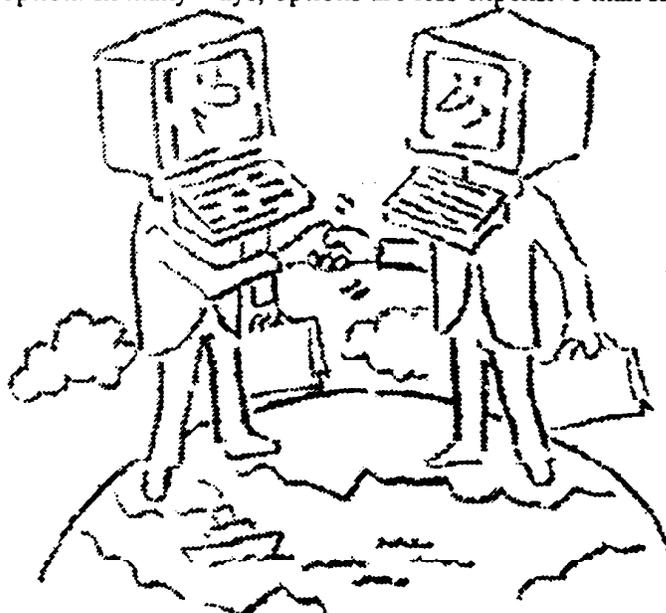
While futures make up most of the trading on the Exchange, there is a related contract that can be used as well, called an option.

Options are exactly what the name says. Someone who buys an options

contract is entitled to buy or sell a futures contract of the same commodity. He doesn't have to buy or sell the futures contract, especially if he would have to do so at a loss, but he has the option to do so if the market moves in his favor.

He can hold on to the option and try to sell it at a better price than he paid for it, or, if the market doesn't go his way, he can let it expire worthless.

Sellers of options, on the other hand, have obligations to perform if the buyer chooses to exercise his option. In many ways, options are less expensive than futures, but in some ways they carry more risk. For example, someone who sells an option called a put incurs the obligation to buy a futures contract. In the event of falling prices, he most likely will have to fulfill his obligation and buy the contract at a relatively high price, even as prices are dropping.



Because business in the United States is so closely linked to markets in other parts of the world, such as Europe and Asia, and because the commodities traded on the New York Mercantile Exchange are used worldwide, events on the other side of the globe can affect the prices in the United States, and vice versa. So the six hours that the trading floor is open is often not sufficient to

allow everyone to meet his needs for hedging, or even speculating. In 1993, the Exchange opened

NYMEX ACCESS, its after-hours electronic trading system. NYMEX ACCESS allows buyers and sellers to trade futures and options contracts for crude oil, heating oil, gasoline, natural gas, and platinum, and futures on gold, silver, copper and propane through a worldwide computer network. The system is active when the trading floor is closed. When the hours for open outcry and NYMEX ACCESS trading are combined, the Exchange is open for about 22 hours a day. Today, the markets never sleep.

What Happens if You Have to Buy or Sell a Commodity that is not traded on an Exchange?

## What Happens if You Have to Buy or Sell a Commodity that is not Traded on an Exchange?

The basic principles of hedging can be used for many commodities for which no futures contract exists, because often they are similar to commodities that are traded. For example, diesel fuel and jet fuel are similar to heating oil, and the three are often priced within a few cents of each other. So, many people who have to buy or sell large quantities of diesel and jet, such as trucking companies, airlines, and oil refiners, have found that they can hedge by using the heating oil futures contract, taking into account the differential between their product and heating oil.



This sounds neat and simple, but as everyone knows, life isn't neat and simple. Not all heating oil is used in the New York Harbor area, and the prices in other cities can vary because of differences in transportation and storage costs, supply and demand patterns, and weather. These differentials are called the basis. The basis is often pretty stable; it almost always costs two or three cents a gallon extra to get heating oil to Bridgeport from New York, let's say. Sometimes though, the differences widen substantially, especially if a wave of Canadian Arctic air heading south stalls just past Bridgeport and stays there all January. This is another element of risk present in the markets called basis risk. Basis risk is, almost always, still far less than the risk involved if you choose not to hedge at all.

Most hedgers, no matter what the commodity, close out their futures positions before the futures contracts expire, and then make or take their physical deliveries through the people with whom they usually buy or sell their actual supplies. Knowing that at any given time, however, someone may actually demand to buy your products, or sell their's to you at that price, helps keep the value true to life.

How Do I know the Other Party Will Pay for What He Bought...  
or Deliver What He Sold?

## How Do I Know the Other Party Will Pay For What He Bought or Deliver What He Sold?

It is the Exchange's job to guarantee each trade, ultimately acting as the seller to every buyer and the buyer to every seller. This is accomplished through a group of about 60 or 70 member firms called clearing members, who include some of the largest and best capitalized names in the banking and financial services industries.

It is through the clearing members that market participants must post good-faith deposits called margin. This is necessary because the Exchange must know that participants have sufficient funds to handle losses they may experience in the market. As soon as anyone buys or sells a futures contract, they must deposit with their clearing member an amount of money that the Exchange determines is sufficient to cover any one-day price move. As long as that person or firm holds on to the contract, the Exchange must maintain minimum margin funds for that position, with the contract holder depositing additional funds whenever the market moves against him.



As a further safeguard, the clearing members contribute to a pool of funds called a guaranty fund that can be used in the event a member or customer of the Exchange defaults on his obligation after the customers' own clearing member and the Exchange itself have already contributed funds. So far, it has not been necessary to use the fund.

The Exchange does not take positions in the market, nor does it even advise people on what positions to take. Instead, it has the responsibility to ensure that the market is fair and orderly. It does this by setting and enforcing rules regarding margin deposits, trading and delivery procedures, membership qualifications, and other aspects of trading. Members who violate the rules can be subject to fines or other sanctions. Looking over the Exchange's shoulder is the Commodity Futures Trading Commission, a U.S. government agency.

### The Exchange is a Unique Place

## The Exchange is a Unique Place

There is no other place like the New York Mercantile Exchange with the same rules and products. Yet, there are a number of commodity exchanges throughout the world, where people participate in a public auction, buying and selling commodities they don't see, with other people whose identities are anonymous.



It might seem hectic and confusing but, in fact, the tried and true method of open outcry has been carefully honed through generations of traders and has supporting it the most sophisticated technology currently available. The individuals in the funny jackets gesturing with their hands are each highly skilled professionals with a great deal of responsibility resting on their shoulders. The commodities must meet strict specifications for quality and quantity, and because the Exchange ultimately guarantees each purchase and sale, the market not only works, but is so effective, that the quotations derived from these transactions are used as pricing standards by companies and individuals around the globe.

The marketplace provided by the Exchange with its price discovery, liquidity, and financial guarantees enables thousands of merchants - from huge oil companies who sell shiploads of crude petroleum to jewelry retailers - to operate more efficiently, and thus more competitively, something that is of vital importance in today's global economy.

