Order Code RS21401
Updated April 21, 2006

Regulation of Energy Derivatives

Mark Jickling
Specialist in Public Finance
Government and Finance Division

Summary

After the collapse of Enron Corp. in late 2001, that company's activities came under intense scrutiny. Much of its business consisted of trading financial contracts whose value was derived from changes in energy prices. Enron's trading in these energy derivatives was largely unregulated: no information about the value or volume of contracts or the identities of traders in this market was available to regulators, except what was contained in Enron's own extremely unreliable financial statements. Trading in energy derivatives rebounded after a post-Enron slump, and much of the market remains unregulated. This "regulatory gap" strikes some observers and policy makers as dangerous for two reasons. First, the absence of government oversight may facilitate various forms of abusive trading and price manipulation. Second, the failure of a large derivatives dealer could conceivably trigger disruptions of supplies and prices in physical energy markets (though such effects were minor in the Enron case).

Legislation before the 109th Congress would require currently unregulated energy derivatives dealers to disclose certain trading data: S. 509 and H.R. 1638 (which applies only to natural gas contracts). Legislation to reauthorize the Commodity Futures Trading Commission (CFTC) — H.R. 4473 and S. 1566 — would increase penalties for fraud and manipulation. H.R. 4473 would in addition authorize the CFTC to collect certain market data from natural gas traders to aid in investigating manipulation. Some, including the CFTC commissioners, argue that new legislation is unnecessary because statutory authority to pursue fraud and manipulation already exists. This report summarizes the history and current status of energy derivatives regulation, as well as legislative reform proposals. It will be updated as developments warrant.

Introduction

Energy derivatives — financial contracts whose value is linked to changes in the price of some energy product — are traded in two kinds of markets in the United States today: the futures exchanges and the off-exchange, or over-the-counter market. The New York Mercantile Exchange (Nymex) offers futures contracts based on prices of crude oil, natural gas, heating oil, and gasoline. (Other futures exchanges offer energy-related contracts, but Nymex is by far the busiest.) Futures exchanges are regulated by the

Commodity Futures Trading Commission (CFTC) under the Commodity Exchange Act (CEA). The CEA imposes a range of mandates on the exchanges (and on futures industry personnel) regarding record keeping (including an audit trail for all trades), registration requirements, market surveillance, financial standards, sales practices, handling of customer funds, and so on.

The second trading venue for energy derivatives is the off-exchange, or over-the-counter (OTC) market. Unlike the futures market, there is no centralized marketplace for OTC derivatives. Instead, a number of firms act as dealers, offering to enter into contracts with others who wish to manage their risk exposure to energy prices. Derivatives contracts based on energy products are generally exempt from regulation under the CEA, so long as the contracts are offered only to "eligible contract participants," defined as financial institutions, professional traders, institutional investors, governmental units, and businesses or individuals with more than $10 million in assets. The law assumes that sophisticated parties such as these do not need the kind of investor protection that government regulation provides for public customers of the futures exchanges.

The CFTC has limited jurisdiction over the OTC market if certain CEA provisions against fraud and price manipulation are violated. In addition, if OTC contracts are traded on an electronic exchange-like facility, where multiple buyers and sellers can post bids and offers and trade with each other, the CFTC can require disclosure of certain transaction price and volume data.[1] At present, however, the OTC market remains primarily a dealer market, and the dealers do not report to the CFTC.

The evolution of the two energy derivatives markets — one regulated, the other largely unregulated — is briefly discussed below.

Historical Development of Derivatives Regulation

In 1974, Congress observed that derivatives trading was about to expand from its traditional base in farm commodities into financial futures — contracts based on bonds, interest rates, currencies, and so on. To ensure that derivatives traders received the same protections whether they were trading pork bellies or T-bonds, P.L. 93-463 created the CFTC to oversee all derivatives trading, regardless of the nature of the underlying commodity. The CFTC was given exclusive jurisdiction: all contracts that were "in the character of" futures contracts had to be traded on a CFTC-regulated futures exchange.

There were two major exceptions to this exchange-trading requirement. Forward contracts, where actual delivery of the commodity would take place at the expiration of the contract, were considered cash sales and not subject to the CEA. Second, the so-called Treasury Amendment (part of the same law that created the CFTC) specified that contracts based on foreign currencies or U.S. Treasury securities could be traded off-exchange. Existing markets in these instruments had long used futures-like contracts and

---

[1] An electronic trading system like Enron Online did not meet this definition, because a single dealer — Enron — was involved in all transactions. Enron Online essentially displayed the prices at which Enron was willing to trade.

appeared to function well without direct government regulation; Treasury saw no public interest in bringing them under the new CFTC.

During the 1980s, a large and active market in OTC derivatives evolved, utilizing swap contracts that served exactly the same economic functions as futures. The first swaps were based on currencies and interest rates; later, OTC contracts based on commodity (including energy) prices were introduced. These OTC markets were well established before the CFTC made any move to assert its jurisdiction, despite the fact that swaps were clearly "in the character of" futures contracts. The potential CFTC jurisdiction, however, created legal uncertainty for the swaps industry: if a court had ruled that a swap was in fact an illegal, off-exchange futures contract, trillions of dollars in outstanding swaps could have been invalidated. This might have caused chaos in financial markets, as swaps users would suddenly be exposed to the risks they had used derivatives to avoid.

The CFTC issued a swaps exemption in 1989, stating that although it believed the CEA gave it authority to regulate swaps, it would not do so as long as they differed from futures contracts in certain enumerated respects. In 1992, Congress gave the CFTC additional authority to exempt OTC contracts (P.L. 102-546). In response, the CFTC modified the 1989 swaps exemption in 1993, and also issued a specific exemption for OTC derivatives based on energy products.[2]

Under the 1993 exemption, OTC energy derivatives would not be regulated if all trading was between principals whose business involved the physical energy commodities underlying the derivatives, if all contracts were negotiated as to their material terms (unlike futures contracts, where terms are standardized), and if all contracts were held to maturity (rather than traded rapidly, as futures are).

This exemption was a matter of regulation, not statute. In May 1998, the CFTC issued a "concept release" that indicated that it was considering the possibility of extending features of exchange regulation to the OTC market. The release solicited comments on whether regulation of OTC derivatives should be modified in light of developments in the marketplace. Among the questions were whether the existing prohibitions on fraud and manipulation were sufficient to protect the public, and whether the CFTC should consider additional terms and conditions relating to registration, capital, internal controls, sales practices, record keeping, or reporting.

The concept release drew strong opposition from the swaps industry and from other regulators, especially the Federal Reserve. In December 1998, Congress included in the Omnibus Appropriations Act (P.L. 105-277) a provision directing the CFTC not to propose or issue any new regulations affecting swap contracts before March 31, 1999. In November 1999, the President's Working Group on Financial Markets issued a report entitled "Over-the-Counter Derivatives Markets and the Commodity Exchange Act." The report recommended that, to remove uncertainty about the legal and regulatory status of the OTC market, bilateral transactions between sophisticated parties that do not involve physical commodities with finite supplies should be excluded from the Commodity

---

[2] "Exemption for Certain Products Involving Energy Products," *Federal Register*, vol. 58, Apr. 20, 1993, p. 21286.

Exchange Act; that is, the CFTC should have no jurisdiction. While the Working Group's report made a distinction between financial commodities and those with finite supplies, and suggested that continuing CEA jurisdiction was appropriate for the latter, the report did *not* recommend that the CFTC should rescind its exemption of OTC energy derivatives. In other words, the Working Group saw no immediate problem with the unregulated status of OTC markets in energy derivatives.

In 2000, the 106th Congress considered two bills (H.R. 4541 and S. 2697) that generally followed the Working Group's recommendations. Energy derivatives were exempted — as a matter of statute — from many of the provisions of the CEA, but were not given a blanket exclusion. The treatment of energy derivatives changed in its wording through the various iterations of the legislation, but the substance remained basically the same, from the bills as introduced to the final passage of the Commodity Futures Modernization Act of 2000 (P.L. 106-554, H.R. 5660). That legislation established three classes of commodities. First, financial variables (interest rates, stock indexes, currencies, etc.) are defined as "excluded commodities," and OTC contracts based on these are not subject to the CEA (provided that trading is restricted to "eligible contract participants," that is, not marketed to small investors). Second, derivative contracts based on agricultural commodities cannot be traded except on the futures exchanges; these remain under CFTC jurisdiction. Finally, there is an "all other" category — "exempt commodities" — which includes energy products. Contracts in exempt commodities can be traded in the OTC market without CFTC regulation provided that no small investors participate. However, certain antifraud and antimanipulation provisions of the CEA continue to apply. If an OTC exchange is created — defined in the legislation as one where multiple buyers and sellers may post bids and trade with each other — the CFTC has some oversight jurisdiction and may require disclosure of certain market information.

In summary, the OTC energy derivatives market developed outside CFTC jurisdiction in the late 1980s and early 1990s, despite the CEA's apparent prohibition of such a market. As with financial OTC derivatives, however, the CFTC never challenged the legality of this off-exchange market. As concerns about legal uncertainty mounted, the CFTC in 1993 issued an exemption stating that certain OTC energy transactions did not fall under the CEA. In 2000, Congress essentially codified this exemption, by including energy in the category of "exempt commodities." This removed them from even the possibility of CFTC regulation, except for a limited antifraud and manipulation jurisdiction and some oversight if the present dealer market for OTC contracts should evolve into an exchange-like market. Thus, the 2000 legislation did not deregulate the OTC energy derivatives market; that market had been unregulated since its beginnings.

Manipulation in Energy Markets

Since the value of derivatives contracts is linked to the price of the underlying commodity, traders who can manipulate commodity prices can reap huge profits. Manipulative strategies may involve either physical (spot) or derivatives markets, or both. Since the Enron scandal, regulators have taken numerous actions against several types of manipulation in energy markets.

In 2003, the CFTC charged Enron with manipulation of natural gas prices. The strategy was simple: Enron purchased an unusual number of contracts for spot gas, driving up prices by simultaneously increasing demand in the marketplace and making other traders think that there was some fundamental factor that favored higher prices. Enron settled CFTC charges by agreeing to pay a $35 million fine in 2004.

Ten energy companies have paid a total of $180 million in fines to the CFTC to settle charges that they manipulated natural gas prices in 2001 and 2002 by providing false information about supply levels to Platts, the leading source of information about energy market conditions. The affected Platts reports sent false signals to other market participants that supplies were significantly tighter than expected, and prices rose (sharply, but briefly) as a result.

Enron and a number of other firms have admitted to "gaming" the marketing system for electrical power in California in 2000, exacerbating price increases and shortages. The strategies included deceptive reporting of energy supplies on hand (to create the impression of shortages to drive up prices), disguising the source of electricity (to take advantage of variable pricing for in-state and out-of-state power), and in some cases actually shutting down power plants during times of tight supplies to drive up prices. Numerous firms and traders face civil and criminal charges as a result of these manipulations.[3]

Enron and other energy dealers engaged in widespread "wash" or "round-trip" trading of energy derivatives. Such trades essentially consist of two firms buying and selling identical contracts simultaneously, so that the net effect is zero. These fictitious trades served two purposes: (1) to create the impression that the OTC derivatives market was deep and liquid (to boost confidence in the market and encourage real trading) and (2) to create fictitious revenues that could be reported on the firms' financial statements, to disguise their true financial condition.

Legislative Proposals on Derivatives Regulation

Since Enron, the regulatory status of OTC energy derivatives has been much debated. In the 108th Congress, the Senate twice voted down proposals to increase the regulatory authority of the CFTC and the Federal Energy Regulatory Commission (FERC) over manipulative trading in energy markets, and to impose various reporting, registration, and record keeping requirements on dealers in OTC energy derivatives. These proposals were offered as amendments to a broad energy policy bill (S.Amdt. 876 to S. 14) and to an agriculture appropriations bill (S.Amdt. 2083 to S. 2673). Similar legislation has been introduced in the 109th Congress (H.R. 1638 and S. 509). H.R. 1638 would reclassify natural gas as an agricultural commodity, which would bring gas contracts under CFTC regulation. In addition, the CFTC reauthorization bill approved by the Senate Agriculture Committee on July 21, 2005, increases civil and criminal penalties for manipulation. H.R. 4473, the reauthorization bill that passed the House on December 14, 2005, in

---

[3] For lists of civil and criminal charges filed in post-Enron scandals, see CRS Report RL31961 and CRS Report RL31866.

addition, authorizes the CFTC to collect certain market data from natural gas traders (in all markets, including OTC) to aid in investigating manipulation.

To supporters of such legislation, the Enron scandal, the California electricity crisis of 2000, and other episodes of manipulation reveal a dangerous gap in regulation. They seek to fill the gap with enhanced CFTC and FERC enforcement authority, stiffer penalties for manipulation, or new disclosure requirements for market participants.

Opponents argue that new legislation is unnecessary because regulators already have the enforcement tools they need to pursue fraud and manipulation in both derivatives and spot markets. The CFTC view expressed in congressional testimony has generally been that the rash of manipulations by Enron and other firms was an aberration that has been corrected by vigorous enforcement actions.

A key issue in this debate is whether the unregulated status of OTC energy derivatives creates wider opportunities for manipulation than would otherwise exist. The criminal and civil charges brought by regulators, many of them involving several firms or traders acting in concert, suggest that manipulation is not a rare occurrence in energy markets. However, it is not clear whether manipulation (on the scale of what has been detected so far) has had a major impact on consumer prices. (An exception would be the California electricity case, but many believe that the half-deregulated market created in California was structurally flawed and invited "gaming" of the system.) Moreover, most of these episodes of manipulation involved spot market prices and transactions, rather than derivatives. It can be argued that derivatives reform would not go to the heart of the problem, and that increased vigilance by regulators is more important.

It is worth noting that the OTC dealers like Enron and Dynegy — whose business was destroyed by scandal — have been replaced as market leaders not by other energy firms, but by financial institutions such as Morgan Stanley, Goldman Sachs, and ABN Amro. In addition, there has been growing use of clearing house mechanisms in the OTC market, providing another layer of market self-regulation.[4] Market forces, in other words, have largely swept away the OTC energy market that was evolving up to the time of the Enron scandal. Of course, this change has not made energy prices more stable.

A second policy concern is that unregulated derivatives markets constitute a web of obligations and connections that is invisible to regulators. If a major dealer defaulted on its obligations, energy producers and users who had purchased derivative contracts to shield them from unfavorable price volatility could suddenly face much higher than anticipated costs. In extreme cases, the failed dealers' trading partners could themselves default. The possibility of this kind of chain reaction is called systemic risk. However, Enron's failure appears to have had little impact on cash energy markets, despite the fact that Enron was the leader in the OTC energy market. As a result, there is no consensus as to the seriousness of the threat of systemic collapse, nor as to whether disclosure requirements and other regulation of OTC energy markets would make a crisis less likely to occur or allow regulators to deal with one more easily.

---

[4] A clearing house, which guarantees payment on derivatives contracts, has a strong incentive to prevent manipulation and artificial price volatility, which increase the likelihood of customer default.