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About this Newsletter

In this issue of *Finance* we discuss the new legal mandates for derivative exchanges and clearing houses under Dodd-Frank. We describe how derivatives clearing houses work, outline how a swaps exchange and clearing house might be organized, and discuss the various types of litigation that the new requirements may generate.

Contents

Introduction

Dodd-Frank Legal Mandates for Derivative Exchanges and Clearing Houses

Derivatives Exchanges and Clearing Houses: The Devil's in the Details

Exchange-Traded Swaps: Positions Versus Trades

Exchanges and Clearing Houses: Risks and Litigation

Conclusion

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Out of the Frying Pan and Into the Fire: Will the Dodd-Frank Swaps Proposal Reduce Systemic Risk?

By George Oldfield and Julia Litvinova

Introduction

The Credit Crisis and Counterparty Risk

Exchange trading for derivative contracts¹ that were formerly traded over-the-counter (OTC), combined with a clearing house and standard margin requirements, will mitigate a significant risk to the financial system. The risk exists because no institution with OTC derivative positions can know precisely the total positions of its counterparties.

This opaqueness limits accurate counterparty risk assessments by market participants and creates the potential for causing a “run on the bank” if market participants doubt the credit worthiness of any particular counterparty. When one institution has a problem meeting a call for collateral, its subsequent attempts to round up adequate collateral can create a cascade of margin calls that infect its counterparties and its counterparties’ own counterparties, as well as more remote trading institutions. Such a cascade of calls for liquid collateral assets appears to have been a cause for financial market liquidity to evaporate at the end of 2008, resulting in a financial crisis.

In reaction to the perceived systemic risk created by OTC derivatives trading, President Obama signed the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank) on July 21, 2010.² The Act brings comprehensive reform to the regulation of OTC derivatives markets. The primary goals of the law are to increase the transparency and efficiency of the OTC derivatives markets and reduce the potential for counterparty and systemic risk.

The views expressed in this newsletter are strictly those of the authors and do not necessarily state or reflect the views of *The Brattle Group, Inc.*

To achieve these goals, Dodd-Frank requires that derivatives transactions that are not initiated as commercial hedges either move into exchange trading with clearing house trade settlements or into a new type of trading platform called a “swap execution facility”. A swap execution facility (SEF) would work much like an exchange, but may not require a clearing house for maintained positions. Dodd-Frank also mandates that regulatory agencies impose capital and margin requirements on swap dealers and major swap trading participants, as well as public reporting of transactions and pricing on swaps.

Dodd-Frank Legal Mandates for Derivative Exchanges and Clearing Houses

Dodd-Frank covers most types of OTC derivatives that fall within the definition of “swaps” now regulated by the U.S. Commodity Futures Trading Commission (CFTC) and “securities-based swaps” now regulated by the U.S. Securities and Exchange Commission (SEC). Figure 1 shows how OTC and exchange-listed derivatives positions have grown in the recent past. The Dodd-Frank swaps definition excludes, among other categories, options on securities (or groups of securities), which are subject to the Securities Act of 1933 and the Securities and Exchange Act of 1934.

Dodd-Frank requires swaps transactions to occur on trading platforms or exchanges and be cleared in exchange clearing houses, with limited exemptions, in order to provide transparency to the market.³ If one of two parties in an exchange-traded contract defaults, the exchange clearing house functions as a guarantor enhancing credit protection.

The exchange determines a settlement price for every contract on every trading day. Settlement prices for exchange-traded contracts are available to the public. As a result, the pricing of exchange-traded contracts is transparent. OTC markets, in contrast, are opaque, and as a result, the valuation of OTC contracts can be difficult and contentious.

A workable definition of a swap will be a difficult task for the regulatory agencies to nail down because swaps can take many different forms and the law allows for a variety of exemptions to an exchange listing. In its simplest form, a swap is an agreement between two parties to exchange one set of

A historical effect of central exchanges is that centralization can engender self-serving behavior among exchange members in their rule making and trading activities. In brief, exchange trading, clearing house guarantees, and regulation do not wholly eliminate systemic risk. Effective regulation of an exchange is necessary to mitigate risk and create an efficient trading venue for both dealers and investors. Moreover, the new swaps trading procedures called for under Dodd-Frank will impose significant trading costs on swap market participants. These themes are expanded in the sections that follow.

payments for another. For example, in an interest rate swap, one party pays the other a periodic fixed interest rate against a notional par amount, while the other party pays a floating rate back to the fixed-rate payer. This set of exchanges can also be described as a portfolio of forward contracts.

Moreover, derivative instruments are frequently packaged together. For instance, a foreign exchange swap is often paired with an interest rate swap. One important exemption to the definition of a swap is that a swap does not include transactions intended to lead to the physical delivery. One can expect that dealers will devote much time and effort to inventing exempt contract variations for apparently simple swaps.

A swap will be exempt from the exchange trading and clearing house settlement requirements if one of the counterparties is an end user that is hedging its own commercial risk. This exemption is important to traditional producers and suppliers in the U.S. commodity markets, such as electric and gas utilities that purchase commodities (either as a source of fuel to produce the electricity or to supply gas to retail customers) and use swaps to hedge or mitigate commercial risk.

While the end user exemption may save margin costs for many market participants, these players would not be protected if the counterparty defaults and would not enjoy the benefits of increased transparency. Dodd-Frank allows the end user to require a swap to be traded and cleared on an exchange or execution facility even if an exemption is available.

Dodd-Frank also requires swap dealers and “major participants”⁴ to register with the CFTC or SEC no later than one year after its enactment, and to satisfy capital and margin requirements to be established by the applicable regulatory authority for OTC swaps. Dodd-Frank is ambiguous as to whether new margin requirements may apply retroactively to existing swap transactions.⁵

The CFTC or SEC will set the margin requirements for OTC swaps only, while clearing houses will establish their own margin requirements, as applicable, for exchange-traded swaps. While the actual capital and margin requirements are unknown, they are likely to be substantial for both cleared and uncleared swaps. Entering into a swap transaction in an exchange-traded and clearing house-settled environment will require swap counterparties to post initial and variation margin.⁶

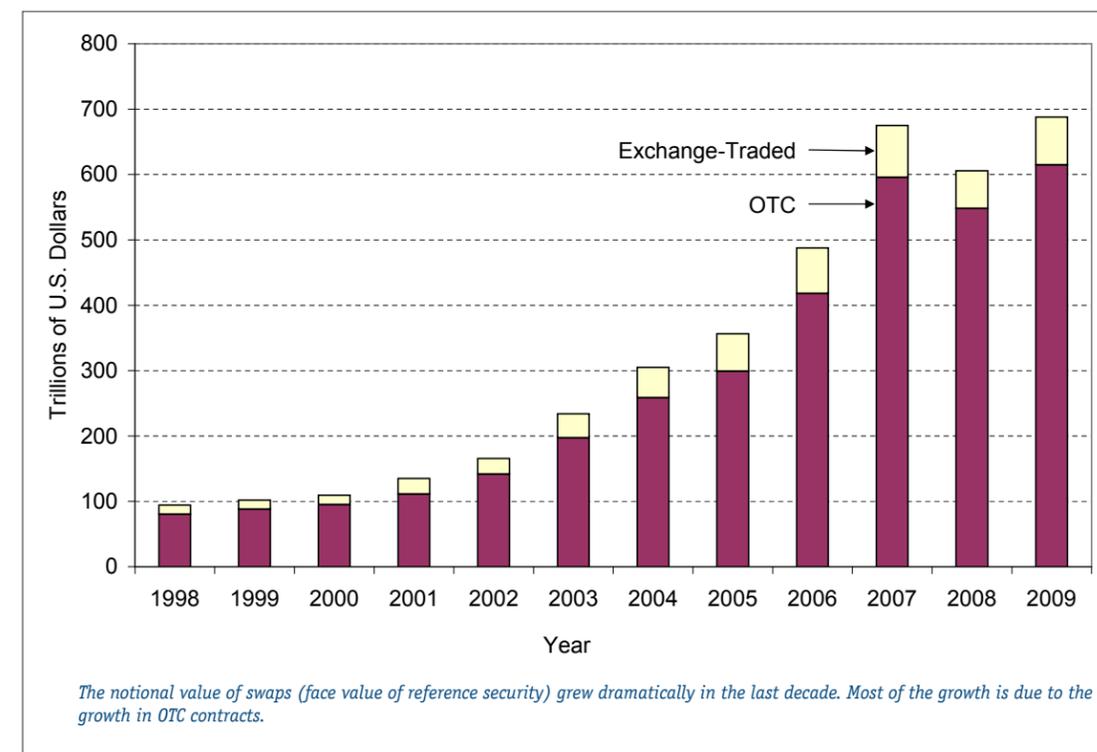
Before Dodd-Frank, the CFTC had authority to impose aggregate position limits across futures markets. Dodd-Frank

now requires the CFTC to do this for exchange-traded swaps in order to:

- (i) diminish, eliminate, or prevent excessive speculation;
- (ii) deter and prevent market manipulation, squeezes, and corners;
- (iii) ensure sufficient market liquidity for bona fide hedgers; and
- (iv) ensure that the price discovery function of the underlying market is not disrupted.⁷

Swap positions entered into prior to enactment of the legislation will be exempt from the position limits imposed by the CFTC. The SEC may also establish limits on the size of positions for security-based swaps. Aggregate position limits are especially important in the finite commodity markets, such as energy, where the physical market may be manipulated by financial traders.

Figure 1 - Outstanding Notional Amounts of OTC and Exchange-Traded Derivatives



Derivatives Exchanges and Clearing Houses: The Devil's in the Details

Most large ticket derivative transactions have been negotiated in OTC markets, while standard types of small denomination contracts have traded on exchanges (see Figure 1). The differences between market organizations are shown in Figures 2 and 3.

Figure 2 shows how an OTC market works. Customers enter contracts directly with dealers. Each dealer is an independent bank and no central recordkeeping or unified margin arrangements exist. In Figure 3, one type of exchange organization is depicted. In this framework, banks act as brokers for customers' exchange-traded swaps and dealers for exempt swaps. All exchange trades are booked at a clearing house, which is the counterparty for all booked trades.

Futures and options contract transactions now occur on exchanges, where contracts trade among members (floor

trading and electronic platforms), while trades are recorded at exchange-associated clearing houses where trades are booked, margined, and settled. An exchange must define its trading protocols for its members: who can trade, how prices are set (dealers or matching), types of orders allowed, order execution priority, contract terms for traded instruments, and clearing house membership terms.

The clearing house sets margin requirements (amounts and against gross positions or net positions), settlement rules (cash settlement or physical delivery), warehouse or depository arrangements, delivery procedures, and default penalties. An exchange member that is not a clearing house member must clear trades through a member clearing firm. Clearing firms are members of the clearing house and maintain margin accounts there. Exchange customers post margin with the clearing firms, which then post margin at the clearing house.

Figure 2 - Over-the-Counter Swap Market

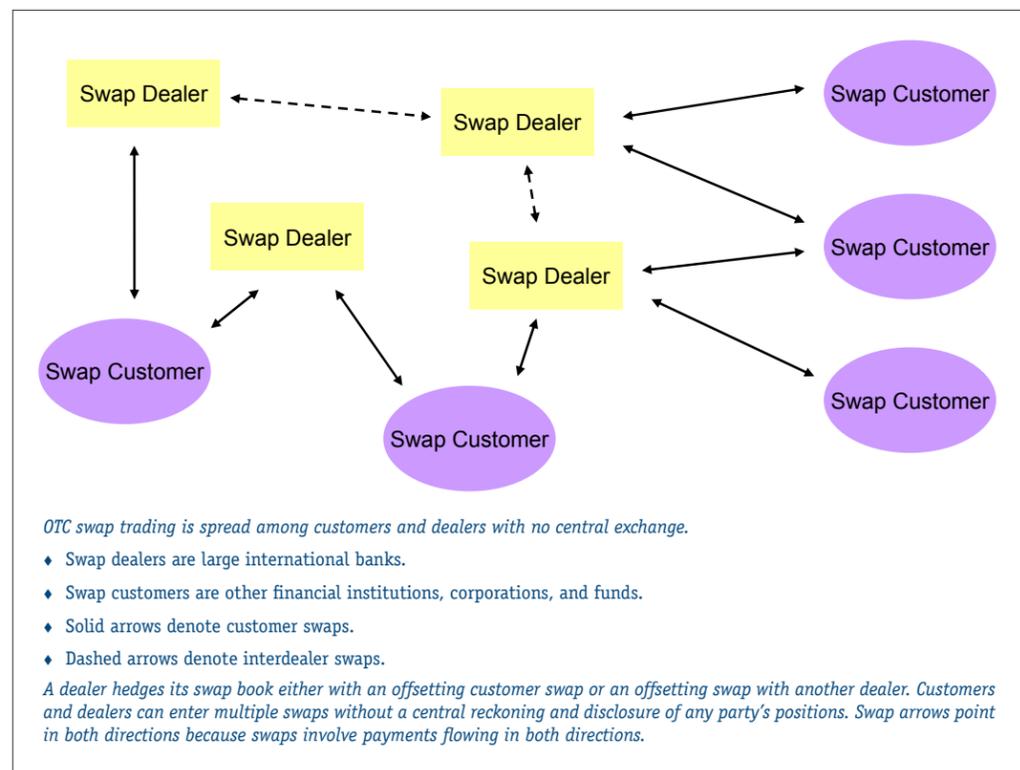
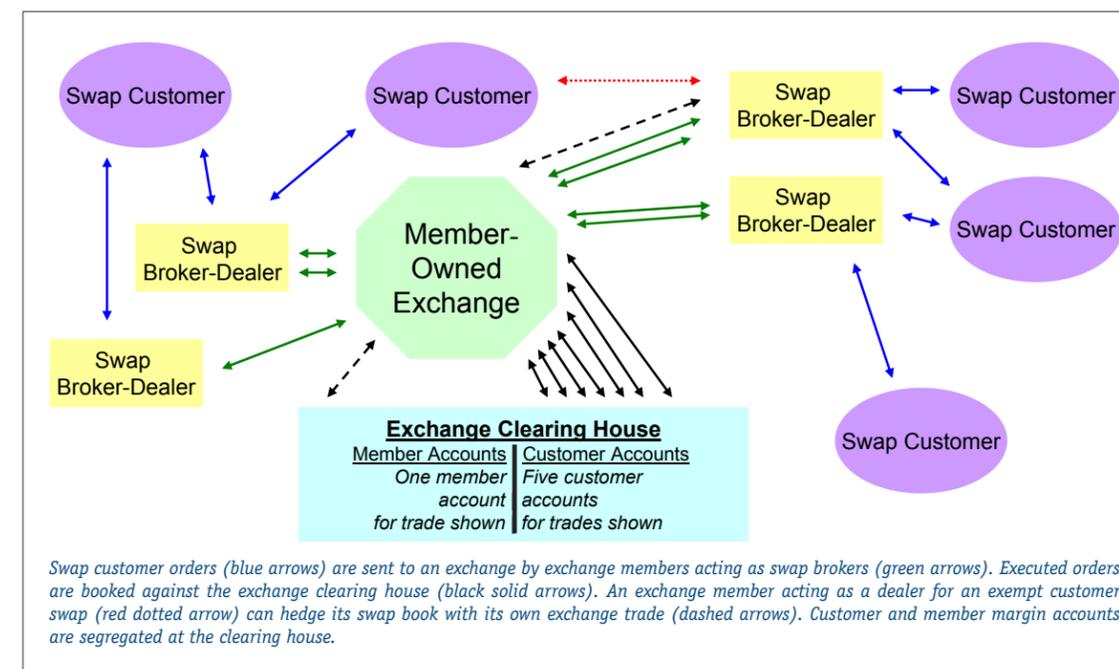


Figure 3 - Exchange Clearing House Swap Market



Derivatives clearing houses in the United States operate on a basis of complete reconciliation (accurate accounting for members' contract obligations) and settlement (termination of members' obligations in exchange for payment). The clearing house is the counterparty in every trade done on the exchange. Clearing houses require their members to post margin against their own and their customers' positions. Initial margin provides the clearing house with funds to cover likely price movement during the liquidation process in the event of a default, while variation margin is topped up daily to ensure that losses do not accumulate in the account.

Clearing house margin is segregated into members' margin and customers' margin. This segregation is a regulatory mandate. Some clearing houses work on a net margin basis for each counterparty (total margin calculated on long minus short positions) and some work on a gross margin basis (each counterparty position has an individual margin requirement).

Margin accounts must be topped up by members and customers on a daily basis in the event of an adverse price move. Positive price moves free some variation margin against

price-favored positions. Meeting margin requirements may impose additional out-of-pocket, opportunity, and liquidity costs for investing parties that traded OTC instruments and formerly had no margin requirements. Moreover, an exchange may require that margins be adjusted intra-day, which would increase the burden of managing intra-day financial operations for many companies. However, there are offsetting benefits due to pricing transparency, marks-to-market, and reduced direct and indirect counterparty risk while the clearing house remains solvent.

Margin accounts are the first line of defense to protect the clearing house and its members against a member's or customer's default on a contract position. After margin deposits, the clearing house's equity capital, which is invested by its members, backs all the clearing house's positions. In this way, a clearing house directly mutualizes among its members the potential loss in excess of margin deposits from a customer or member default. This means that the capitalization of the clearing house is an important aspect of whether exchange trading actually reduces systemic risk in the markets for derivative instruments.

Exchange-Traded Swaps: Positions Versus Trades

Given the way a futures exchange clearing house usually works, it is not clear exactly how the contract terms and clearing house arrangements will be defined for swaps transactions. Consider a standard swap arrangement, in which a customer enters an OTC interest rate swap with a dealer bank. The bank is a principal in the transaction; that is, the bank books the swap and backs it with its own equity. The customer and bank negotiate to agree on the nominal amount (which is the basis used to compute interest payments), the swap tenor (term to maturity), and the interest payment amounts, frequency, and currency that apply in the contract.

If the customer pays the bank a fixed interest amount, the bank pays the customer a floating rate (usually periodic LIBOR⁸ plus a negotiated markup of basis points). If the customer wants to pay the floating rate, then the roles are reversed. The

customer pays no commission or fee for the swap, and like a futures contract, its entry price is zero. Swaps are frequently multi-year contracts.

An exchange-traded swap could work at least two different ways. With the first method, which is based on a futures market model, the fixed-rate payer would sell (a short position) on the exchange an unsecured fixed-rate interest strip based on an exchange contact-defined standard nominal amount and currency, standard payment frequency, and standard maturity equal to the swap tenor. Simultaneously, the customer would buy (a long position) an unsecured floating interest rate strip with an exchange-defined floating index and currency and the same par value and tenor as the long fixed interest rate strip bought.

The clearing house would be the counterparty to both trades and guarantee periodic payments. Margin could be on a gross basis so both contracts would require a margin deposit, or net basis so very little margin would be necessary. The clearing houses' counterparties to its offsetting positions would not necessarily be identical for both legs of the swap. That is, a customer could buy or sell either part of the swap without pairing the two to make a complete swap.

Once the trades clear and settle, in perhaps a day or two, the clearing house would remain the counterparty to each position so all payments on the swaps would go through the clearing house. The clearing house would mark all its positions to market each day and require margin to be adjusted. Margin accounts would be maintained while the positions remain open. A strip position could close by a customer selling a long strip, buying a short strip, or at the end of the strip's tenor once the last required payment is made. As the counterparty to all trades, the swap clearing house would maintain and underwrite a substantial book of multi-year strip positions.

Without effective regulation, the clearing house could potentially become a "too big to fail" enterprise and a central point of systemic risk.

A second way to organize a swap execution facility would be with a trade guarantee, rather than a position guarantee system. Using this method, which mimics security markets, complete swaps with standard terms would be bought and sold openly on an exchange and cleared and settled through a clearing house. Once a trade settles, the clearing house would be out of the position except for recordkeeping. Like the current OTC swap market, each counterparty would be the actual trade counterparty and exposed to the other's credit risk. Also, as listed contracts, swaps could be retraded in secondary market trades on the exchange and cleared through the exchange clearing house.

This would provide marks-to-market and complete record-keeping of counterparties to swaps. The arrangement would disperse credit risk away from the central clearing house

Trading Crude Oil Futures Contracts on the Chicago Mercantile Exchange

Suppose a speculator^A wants to buy oil one year from now. She instructs her broker (called a futures commission merchant or FCM) to buy futures contracts on crude oil^B and the FCM relays these instructions to a trader (a member or member's representative) at the Chicago Mercantile Exchange (CME). The speculator would typically place a market order with her FCM, which is a request to carry out a trade immediately at the best price available in the market. However, there are many other types of orders, such as a limit order (the order can be executed only at a particular price), a stop order or stop-loss order (the order is executed at the best available price once a bid or offer is made at that particular price or a trade moves past the stop-loss price), stop-limit order (which is a combination of the first two order types), etc.^C

Once the order is placed with a trader, the trader at the CME has a choice of trading venue for crude oil, including the traditional open outcry system in New York, where traders physically meet on the floor of the exchange; CME Globex, which is the electronic trading platform; and CME ClearPort, which is a central clearing system for the OTC market.^D

The CME specifies all standardized features of the futures contract on light sweet crude oil, such as contract size or amount of oil to be delivered under one contract (1,000 U.S. barrels), contract price quotation (U.S. dollar and cents per barrel), minimum price fluctuation or tick size (\$0.01 per barrel), delivery point (Cushing, Oklahoma), settlement type (physical), delivery period and delivery arrangements, and position limits or the maximum number of contracts a single participant can hold, etc.^E

A daily price limit change for crude oil is \$10 per barrel (or \$10,000 per contract), meaning that if a contract, bid, or offer sits at the limit for five minutes, trading is halted for five minutes. When the trading is resumed, the limit is expanded by \$10 per barrel in the indicated direction. The purpose

of daily price limits is to prevent large price movements from occurring before margin calls can be made, thereby protecting the clearing house.

The CME specifies the requirement for physical delivery of oil to the specified delivery point during the delivery period. Taking physical delivery usually means accepting a warehouse receipt in return for immediate payment. For example, an investor who sold oil futures and has decided to make delivery instructs his FCM to issue a notice of intent to deliver to the exchange clearing house.

The exchange then chooses a party with a long position in oil futures to accept delivery (usually oldest outstanding long contracts first). Because an equal number of long and short contracts exist at all times, every short contract making a delivery can be matched to an outstanding long contract. Note that the majority of traders and investors close out their positions prior to delivery period by entering into the opposite type of trade from the original one. Thus, the vast majority of futures contracts are closed out prior to expiration.

The CME, like any other clearing house or exchange, imposes a margining regime (also called performance bond), which seeks to ensure that obligations of both clearing members and their customers are met. For the futures on light sweet crude oil, the CME currently requires:

- (i) an initial performance bond of \$5,063 per contract with a maintenance bond (also called variation margin) of \$3,750 for speculators, and
- (ii) an initial performance bond of \$3,750 with a maintenance bond at the same level for hedgers and clearing members.^F

Assuming that the trader, who is a speculator, holds two crude oil futures contracts, she would have to deposit a \$10,126 (2 x \$5,063) initial

performance bond. If the futures price of the crude oil drops by \$2 per barrel, the account balance would drop by \$4,000 (\$2 per barrel x 2,000 barrels) to \$6,126, which is below the required maintenance margin of \$7,500 (2 x \$3,750). The trader will have to deposit additional funds of \$1,374 (\$7,500 - \$6,126) to bring the account back up to \$10,126. The trader's potential gains and losses change each time the settlement price of the contract changes, with the final gain or loss determined when the trader either offsets the contract by selling it, or when the contract expires. The CME has adopted gross margining, that is, contract by contract with some allowances for 'spreads' or offsets.^G

In case a trader or exchange clearing member defaults, exchanges follow certain emergency procedures designed for risk control (immediate close out of the defaulting member's proprietary positions) and risk segregation (transferring a customer's position and funds from the defaulting member to another clearing member). If a defaulting clearing member's margin is not sufficient to satisfy its obligations, the clearing house applies the principle of loss-spreading, which may involve withdrawal of membership, a deposit in the form of a guarantee fund, assessments against other clearing members, or insurance arrangements in the case of a major default when losses exceed all other available resources.^H

^A Speculators take position on the market. Hedgers want to avoid exposure to adverse movements in the market.

^B Crude oil is the world's most actively traded commodity. See description of the CME Group's light sweet crude oil futures. Available at: http://www.cmegroup.com/trading/energy/crude-oil/light-sweet-crude_learn_more.html.

^C Hull, *Options, Futures, and Other Derivatives*, 6th ed., Upper Saddle River: Pearson, 2006.

^D CME ClearPort was launched in 2002 to provide centralized clearing services and mitigate risk in the OTC energy marketplace. Currently CME ClearPort clears OTC transactions across multiple asset classes including agricultural commodities, energy, green products, and metals. The CME plans to expand the asset classes to cover credit, equities, foreign exchange, interest rates, and weather. OTC clearing through CME ClearPort allows customers to continue to conduct business off-exchange and simultaneously take advantage of the opportunity to mitigate the counterparty risk they face.

^E See the CME Group's contract specification for light sweet crude oil futures. Available at: http://www.cmegroup.com/trading/energy/crude-oil/light-sweet-crude_contract_specifications.html.

^F The maintenance bond is included in the initial performance bond. If the price variations of the contract bring the account balance under the level of the maintenance bond, the trader has to deposit additional funds to bring the account back up to the level of the initial performance bond. If the price variations of the contract bring the account balance above the maintenance bond, the trader can withdraw the excess funds from the account up to the level of the initial performance bond. If the maintenance bond is set at the same level as the initial performance bond, it always has to be met. See the CME Group's Performance Bond Requirements for crude oil, outright rates. Available at: <http://www.cmegroup.com/wrappedpages/clearing/pbrates/performancebond.html>.

^G Dale, "Risk Management in US Derivatives Clearing Houses," *Essays in International Financial & Economic Law*, No. 14, 1998.

^H *Ibid.*

while allowing the clearing house to maintain records of all investors' exchange-traded swap positions. It would centralize trading and recordkeeping without requiring that the clearing house maintain a substantial amount of capital.

With the current regulatory set up, it is possible that the CFTC will propose exchange trading and clearing house arrangements for interest rate, foreign exchange, commodity, and energy swaps contracts based on the first model. The SEC, which currently regulates exchange trading in securities and options on securities, may choose swap execution facility arrangements based on the second model for credit default swaps and other securities-based derivatives.

In anticipation of the new regulations, the CME and InterContinentalExchange (ICE), both established derivative exchanges with associated clearing houses, have already set up clearing houses for swaps. NASDAQ has as well, but has not attracted large commercial banks to join.⁹ The basic problem going forward is that exchanges and clearing houses are established to benefit their members, not investors. Unless competitive exchanges are established, it will be up to regulators to limit monopoly behavior by the members (large banks) of the new trading platforms and clearing houses.¹⁰ Even competition will need regulatory oversight to prevent "races to the bottom" as rival exchanges compete for customers.

Exchanges and Clearing Houses: Risks and Litigation

Even when derivative contract trading is funneled through a regulated exchange and settled through an exchange clearing house, credit and counterparty exposure problems do not disappear (see the sidebar "Great Corners, Squeezes, and Market Failures").¹¹ Recent cases involving hedge funds illustrate the types of complex litigation that can arise from exchange-traded and cleared derivative contracts, as demonstrated in the cases that follow. First, we discuss the Amaranth Advisors case, which involved market manipulation. Then, we outline the arguments in a pending case that involves a dispute between Peak Ridge and Morgan Stanley over margin and position liquidation in exchange-traded contracts.

AMARANTH ADVISORS COLLAPSE

Amaranth Advisors, L.L.C. (Amaranth) was a hedge fund that collapsed in September 2006 after it lost \$6 billion on its natural gas trading book. On July 25, 2007, the CFTC filed a complaint alleging that Amaranth and its head trader, Brian

As described earlier, Dodd-Frank requires both the CFTC and SEC to regulate the OTC swap market. The SEC is required to regulate securities-based swaps and the CFTC all other swaps. The legislation will go into effect July 16, 2011. Between now and then, the regulators must adopt rules on more than 60 topics. Both regulatory bodies are advancing rules designed to increase transparency in the OTC derivatives trading market. On December 15, 2010, the SEC advanced rules addressing the process by which a clearing agency will submit information to the SEC about securities-based swaps, and the procedure the SEC will use to exempt a party from the clearing requirement.

The CFTC now has about 30 rulemaking actions pending and has closed five others. Once the CFTC issues a proposed rule, interested parties have 60 days to make comments on the proposal. For example, on December 16, 2010, the CFTC proposed rules allowing new trading platforms called swap execution facilities (SEFs) to rely on prices quoted by market participants. SEFs would be required to have order book systems, such as electronic trading systems, or request-for-quote systems open to multiple market participants. SEFs may also provide real-time electronic quotes to all participants in the trading system. On February 2, 2011, the SEC announced that it had approved the establishment of security-based SEFs to make swap trading more transparent and fair.

Hunter, had attempted to manipulate the prices of natural gas futures contracts traded on the NYMEX. Manipulation was alleged to have occurred on two days — February 24, 2006 and April 26, 2006 — in each case by selling a large number of futures contracts in the final minutes of trading.

The CFTC also alleged that Amaranth attempted to cover up the manipulation by making false and misleading statements to the NYMEX Compliance Department. Later, on July 26, 2007, the Federal Energy Regulatory Commission (FERC) issued an order to Amaranth, Brian Hunter, and another Amaranth trader, Matthew Donohoe, to show cause why they had not violated section 1c.1 of the FERC regulations, which prohibit manipulation of natural gas prices.¹²

The crux of the CFTC and FERC allegations was that Amaranth attempted to drive down the settlement prices for NYMEX natural gas futures by selling a large number of contracts in the final minutes of trading. The settlement price on the last

Great Corners, Squeezes, and Market Failures

Derivative instruments seem to be especially subject to serious trading mischief. This occurs despite exchange trading, clearing house rules, and regulatory oversight. A few cases from futures markets illustrate how market failures can occur.

One memorable case in 1976 resulted in a record settlement failure on commodity futures contracts in the United States. J. R. Simplot and his associates shorted April and May Maine potato futures contracts on the New York Mercantile Exchange (NYMEX) in an attempt to depress the delivery price of physical potatoes. An opposing group went long the same contracts and apparently assured the Simplot group's contract default by tying up all the freight cars on the Bangor and Aroostock Railroad so potatoes could not be transported from harvest to delivery.

At delivery time, Simplot and his associates, who had failed to enter offsetting long contracts for cash settlement of their position, failed to deliver on their 1,000 outstanding short contracts the 50,000,000 pounds of potatoes due. Moreover, the clearing firms for the Simplot group's trades failed to cover the outstanding positions. All the trading was monitored by the CFTC.

The litigation in this case, including an antitrust judgment against Simplot et. al., lasted until 1985. For legal insight into this market failure, see Judge Friendly's opinion on the implied private right of action under the Commodity Exchange Act^A and Judge Cardamone's opinion supporting the antitrust action against Simplot, the New York Mercantile Exchange, and others for price manipulation.^B

A similar situation arose with the Hunt Brothers silver trading fiasco in 1980. In this case, CFTC inertia was not the issue as much as the CFTC's apparent regulatory capture by the exchanges. With the CFTC's approval, the exchanges took extraordinary steps to change rules and protect their members' short positions against the Hunts' long partial corner. These steps forced the Hunts to incur huge losses on their silver contracts. In this case, the Federal Reserve determined that a default by the Hunt Brothers would likely force several large brokers into bankruptcy and that the brokers' failures would endanger a number of banks that lent to the brokers. To avoid an immediate default, the Federal Reserve persuaded a group of banks to extend \$1.1 billion in credit to the Hunts, which allowed them to avert an immediate default.^C

Silver market manipulation is back in the litigation news. On December 16, 2010, a consolidated class action lawsuit was filed against JPMorgan Chase & Co. and HSBC Holdings PLC alleging they violated antitrust laws by manipulating the silver market and potentially reaping billions of dollars of profits while keeping the price of silver artificially low.

The collapse of Barings, Britain's oldest merchant bank, is an example of market failure caused by the lack of internal and external controls and by cross-border coordination issues related to the operations of

international markets for exchange traded and cleared products. Nick Leeson, a chief trader in Barings' Singapore office, ran an arbitrage strategy that profited from the differences in the prices of Nikkei 225 futures contracts listed on the Osaka Securities Exchange (OSE) in Japan and the Singapore International Monetary Exchange (SIMEX).

As loosely supervised traders sometimes do, he began to speculate on the future direction of Nikkei instead of hedging his long positions on one exchange with shorts on the other. Finally, he took a bet that Nikkei would stay within a limited and narrow range and lost over \$1.4 billion after the Kobe earthquake struck in January 1995. The massive losses led to Barings' collapse that year.

While a lack of internal controls and trading supervision was the primary reason for Barings' failure, lack of cross-border cooperation between market authorities was another important factor. Information sharing between exchanges, for instance, would have revealed that Barings' exposure on the OSE was eight times higher than its nearest rival's and its exposure was even bigger on the SIMEX. Barings was purchased by ING in March 1995 for one pound sterling and ING covered Barings' losses on Leeson's positions.

Following the failure of Barings, which involved only exchange-traded contracts, regulatory authorities responsible for supervising the world's major futures and options markets issued a Windsor Declaration^D in which they outline proposed steps to take in order to improve cooperation between market authorities.

^A *Leist v. Simplot*, 638 F.2d 283. For an expanded discussion of this point, see Ledgerwood, "Screens for the Detection of Manipulative Intent," December 19, 2010. Available at SSRN: <http://ssrn.com/abstract=1728473>.

^B *Strobl v. New York Mercantile Exchange*, 768 F.2d 22.

^C Financial Crisis Inquiry Commission, "Government Rescues of 'Too-Big-to-Fail' Financial Institutions," Preliminary Staff Report, August 31, 2010.

^D In May 1995 representatives of regulatory authorities in 16 countries responsible for supervising the activities of the world's major futures and options markets met in Windsor, England to discuss key issues resulting from the failure of Barings. The authorities agreed to a program of work to ensure that regulatory concerns revealed by this failure were addressed and issued the Windsor Declaration.



day of trading for the NYMEX natural gas futures contract is determined as a volume-weighted average of the transaction prices during the last 30 minutes of trading. The allegations were that the impact of selling a large number of contracts in a narrow time window, although adverse to the long position in NYMEX futures viewed in isolation, benefited Amaranth because it had accumulated a much larger short position in OTC swap agreements that were indexed to the NYMEX settlement prices.

On August 12, 2009, the CFTC and the FERC each announced a settlement of the manipulation cases brought against Amaranth and Matthew Donohoe, but not Brian Hunter. Under the settlement Amaranth agreed to pay \$7.5 million to the U.S. Treasury. Amaranth also made certain concessions as to its positions in natural gas futures and swap contracts and to the FERC's jurisdiction in this matter.

The FERC order approving the settlement stated that its decision was driven in large part by the state of Amaranth's financial assets: "[I]f Enforcement Litigation Staff were to continue to litigate this matter, there is only a very small chance it would be able to collect the proposed penalties set forth in the Show Cause Order."¹³

MORGAN STANLEY V. PEAK RIDGE DISPUTE

Another recent breach of contract suit filed by Morgan Stanley against a hedge fund named Peak Ridge on November 8, 2010 illustrates the importance of maintaining agreed-upon

margin, which can increase over time, especially if the trades are deemed to be highly leveraged, risky, and speculative. Peak Ridge traded a variety of exchange-listed futures and other derivatives in the natural gas markets through a futures trading account with Morgan Stanley, a futures commission merchant.¹⁴

According to an agreement signed by the parties, Peak Ridge was allegedly required to post margin in connection with the contracts it purchased to cover intra-day market losses on its positions and to protect against future daily fluctuations in the value of the contracts held in the Morgan Stanley account. The suit states that on June 4, 2010, the Peak Ridge account lost \$9.8 million in a single day, leaving the fund significantly below its required minimum margin ratio. Morgan Stanley increased the minimum margin ratio, which Peak Ridge had not satisfied, prompting Morgan Stanley to declare the fund in default. Morgan Stanley terminated Peak Ridge's access to the fund's account and entered into several hedging transactions in the account.

In addition to losses on the position due to adverse market moves, Morgan Stanley allegedly incurred losses on hedges. Pursuant to its agreement, the complaint alleges that Peak Ridge is fully responsible for all these losses, costs, and expenses. After selling the fund's remaining positions, Morgan Stanley sent a demand for payment of approximately \$40.6 million, which the fund failed to pay. The litigation in this case continues.

CONCLUSION

In summary, the Dodd-Frank mandate for exchange trading and clearing house intermediation of swaps transactions will not wholly eliminate problems with derivatives contract trading. All of the futures market troubles cited in this newsletter occurred with exchange-traded and cleared transactions in markets regulated by federal overseers. In fact, clearing houses can concentrate counterparty risk and lead to centralization of markets that were formerly diffuse and competitive.

Clearing houses can operate as information resources so that parties to trades can more accurately evaluate counterparty risk, but clearing houses also place another entity in the transaction chain. This will be a concern for risk managers

and nonmember traders who cannot easily evaluate the financial health of clearing houses. Moreover, exchanges, clearing houses, and regulators will create margin rules, capital regulations, and trading protocols that will require trading operations to develop, install, and monitor extensive and expensive in-house compliance procedures.

Increasing the cost of trading may lead to attempts for further vertical integration by companies that formerly relied on market transactions for hedging. In addition, compliance breakdowns will likely lead to expanded future litigation to resolve disputes that arise from new rules and regulations that have not been fully tested in the courts.

ENDNOTES

¹ A derivative instrument is one whose payoff depends on another, more basic commodity or financial instrument. They can be originated and traded a number of different ways: exchange-traded like a futures contract, over-the-counter as a counterparty's obligation (such as a swap), publicly offered as a trust-issued claim against the trust's own assets like a collateralized mortgage obligation, or a hybrid instrument such as a synthetic collateralized debt obligation sold as a 144A private placement.

² The legislation will be effective July 16, 2011.

³ Note that the use of a central clearing house for OTC swaps is not new (see footnote D in the sidebar "Trading Crude Oil Futures Contracts on the Chicago Mercantile Exchange").

⁴ The term "major swap participant" is defined in "Proposed Rules, Definitions Contained in Title VII of Dodd-Frank Wall Street Reform and Consumer Protection Act, Sections 721 (a) (16) of the Dodd-Frank Act," *Federal Register*, Vol. 75, No. 161, August 20, 2010. For further definition of swap dealer, security-based swap dealer, major swap participant, major security-based swap participant, and eligible contract participant see "Proposed Rules," *Federal Register*, Vol. 75, No. 244, December 21, 2010.

⁵ Note that margin requirements for OTC swaps are not new. For example, collateral requirements have been part of many OTC energy contracts for years.

⁶ Structured finance vehicles are likely to be adversely affected by the new legislation because they mostly enter into OTC type swaps, which will probably have higher margin requirements and lower market liquidity once the new law is in effect. Special purpose entities (SPEs) that issue structured claims generally enter into swaps that are tailored to a particular structure. Thus the required swaps may not be standard enough to be centrally traded and cleared. In addition, an SPE rarely has enough cash to post any margin required by a clearing house because most of its assets are pledged as collateral to the investors that purchased the SPE-issued claims.

⁷ See Skadden, Arps, Slate, Meagher & Flom LLP & Affiliates, "The Dodd-Frank Act, Commentary and Insights," July 12, 2010, page 137 and Section 739 of the Dodd-Frank Act.

⁸ The LIBOR is the London Inter-Bank Offer Rate, a widely used benchmark for minimal risk interest rates, which is quoted for varying periods.

⁹ See "A secret banking elite rules derivatives trading," *The New York Times*, Sunday, December 12, 2010.

¹⁰ On December 28, 2010, the Antitrust Division of the U.S. Department of Justice (DOJ) issued a letter to the CFTC and SEC, in which it took issue with the SEC's proposed ownership limits on security-based swap execution facilities (SEFs) and national securities exchanges. The DOJ's proposed modifications are designed to promote competition and prevent the emergence of a dominant trading platform controlled by major dealers. Proposed modifications include ownership restrictions and stricter governance restrictions on SEFs, designated contract markets, and derivatives clearing organizations.

¹¹ Currently, each exchange regulated by the CFTC is required to maintain a market surveillance program at its clearing house that monitors exchange trades and clearing house positions to signal potential instances of price manipulation and price distortion, and to enforce its own speculative position limits and position accountability rules. A clearing house must operate its surveillance program based upon the CFTC's principles-based regulations, specifically Core Principle 4 (Monitoring Trading) and Core Principle 5 (Position Limitations or Accountability). In revising its regulations covering disruptive trading practices and market manipulation, the CFTC has proposed to implement its new statutory mandate by modifying its Core Principles and defining new requirements for designated derivative contract exchanges and clearing houses. Please visit http://www.brattle.com/Brattle_Comments_to_the_CFTC_Jan_2011 for a summary of our recommendations and to download our comments.

¹² 18 C.F.R. §1c.1 (2008) (Anti-Manipulation Rule).

¹³ Brain Hunter was not a party to the settlement between Amaranth, Donohoe, the CFTC, and the FERC. The FERC held hearings on the matter in August 2009 with Hunter as the sole respondent. On January 22, 2010, a FERC administrative law judge issued an initial decision finding that Hunter had violated the FERC's Anti-Manipulation Rule.

¹⁴ Complaint in *Morgan Stanley & Co. Incorporated v. Peak Ridge Master SPC Ltd*, on behalf of the Peak Ridge Commodities Volatility Master Fund Segregated Portfolio, 1:2010cv08405, November 8, 2010.

About the Authors



Principal

Dr. George Oldfield has worked at the U.S. Securities and Exchange Commission as an economic research fellow, specializing in disclosure rules for corporate pensions, executive compensation, and employee stock options. He has also served as a managing director in PaineWebber's Capital Markets Division, where he managed the dealer's mortgage and asset securitization business. He has spent much of his career in academia, as a professor of finance at the College of William and Mary's Mason School of Business, Dartmouth College's Tuck School, and Cornell University's Johnson School.

Dr. Oldfield holds a Ph.D. and M.A. in finance from The Wharton School of the University of Pennsylvania.

Telephone: +1.202.955.5050 **Email:** George.Oldfield@brattle.com



Senior Associate

Dr. Julia Litvinova specializes in financial modeling, tax litigation, risk management, and econometrics. She has provided expert support in analyses of complex structured investments in tax litigation. She has also assisted electric and gas utilities with risk management and energy portfolios, resource planning, and hedging strategies valuation.

Dr. Litvinova holds a Ph.D. and M.A. in economics from Duke University.

Telephone: +1.617.864.7900 **Email:** Julia.Litvinova@brattle.com

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44 Brattle Street
Cambridge, MA 02138
Telephone +1.617.864.7900
Facsimile +1.617.864.1576

The Brattle Group Limited
Rond Point Schuman 6
Box 5
1040 Brussels
Belgium
Telephone +32.2.234.77.05
Facsimile +32.2.234.79.05

Suite 1140
353 Sacramento Street
San Francisco, CA 94111
Telephone +1.415.217.1000
Facsimile +1.415.217.1099

The Brattle Group Limited
Halton House
20-23 Holborn
London EC1N 2JD
United Kingdom
Telephone +44.20.7406.7900
Facsimile +44.20.7406.7901

Suite 1200
1850 M Street, NW
Washington, DC 20036
Telephone +1.202.955.5050
Facsimile +1.202.955.5059

The Brattle Group Limited
Torre Europa
Paseo de la Castellana 95, Planta 15
28046 Madrid
Spain
Telephone +34.91.418.69.70
Facsimile +34.91.418.69.99