Testimony of Christopher Ferreri
Chairman of the
Wholesale Markets Brokers' Association, Americas
Before the House Committee on Financial Services
October 7, 2009

Chairman Frank, Ranking Member Bachus, members of the Committee, thank you for inviting me to testify today on the reform of the over-the-counter (OTC) derivatives market. My name is Christopher Ferreri, and I am Chairman of the Wholesale Markets Brokers' Association, Americas (WMBA), an independent industry body representing the largest wholesale and inter-dealer brokers (IDBs) operating in the North American wholesale markets across a broad range of financial products. I am also Managing Director of ICAP, one of the founding member firms of the WMBA. I am testifying today in my capacity as Chairman and as a board member of WMBA.

Inter-dealer Brokers

Inter-dealer brokers provide a valuable service to the marketplace. We are, if you will, a broker's broker. We work with broker/dealers and other large financial institutions in the primary over-the-counter markets to execute their customers' orders, facilitate their proprietary/dealer trading and manage their exposure to risk. Inter-dealer brokers serve as intermediaries that facilitate access to OTC and exchange traded pools of liquidity across a full range of asset classes and their associated derivatives. Inter-dealer brokers also provide OTC market transparency through publication of unbiased and independent market data and pricing data before, during and after trades are executed. The information collected, maintained and generated by inter-dealer brokers provides a helpful tool to market regulators in monitoring for fraud and manipulation in the markets. Our members currently publish market information through a variety of readily accessible and subscription sources worldwide.

The inter-dealer broker markets operated with their usual efficiency during the worst days of the financial crisis, helping businesses access vital capital markets at a time of dire necessity. It is estimated that each day IDBs handle on average two million OTC trades globally corresponding to about $5 trillion in size across the range of FX, interest rate, credit, equity and commodity asset classes in both cash and derivative forms. Typical trading volume through inter-dealer brokers is approximately one-third of the total wholesale market volume in any given product type, with the remaining volume conducted directly between counterparties.

Chairman's Discussion Draft and the Treasury Department's Proposed Legislation

Mr. Chairman, we are supportive of the efforts to more effectively oversee the OTC markets for derivative financial products. No one knows better than us the unique challenge of aggregating liquidity and executing transactions in global markets for complex, non-commoditized financial instruments. We want to work with Congress and Regulators to ensure that the markets are functioning efficiently and fairly and that systemic risk in the overall marketplace can be adequately monitored. As the Committee considers how best to regulate the OTC derivatives market, we are confident that you will work carefully to be sure that there are not unintended, adverse consequences that could impede competition to the detriment of end users and other market participants.

We believe that the discussion draft and the Treasury Department's proposed legislation take an important step towards bringing additional regulation to the over-the-counter derivatives markets and that many of its requirements will integrate smoothly with the current practices of many inter-dealer brokers. We support the efforts taken thus far by the Administration and Congress to give the Commodity Futures Trading Commission ("CFTC") and the Securities and Exchange Commission ("SEC") greater authority to implement new regulations for the over-the-counter markets.

As the Committee begins to formally consider the draft legislation, we have suggestions that we believe will enhance the OTC derivatives market to operate with enhanced safety and soundness protections without sacrificing the innovative and competitive environment that has fueled its growth. As an Association whose membership is comprised of rival inter-dealer brokers that make up over 90% of all inter-dealer broker trading with capital strength, technological framework and market sophistication, we agree that having robust competition in the trade execution sector brings advancement, improved quality of service and competitive pricing that ultimately benefits end users.

We would like to focus on two particular issues – the characteristics and responsibilities of what is termed a swap execution facility and the concept of open, neutral and non-discriminatory access to central counterparty clearing facilities.

Swap Execution Facility

Our objective as inter-dealer brokers is to continue to provide efficient and competitive wholesale intermediary services as we transition to a new regulatory structure. As we currently operate, it is clear that inter-dealer brokers would fulfill many of the criteria of the Swap Execution Facilities used for swap transactions under the draft legislation, or the Alternative Swap Execution Facilities under the Treasury Department's proposal.

The WMBA believes that the swap execution facility should exercise the same flexibility as do the various exchanges in terms of mode of execution, whether it be voice, 'hybrid', or fully electronic. The facility itself, and the products traded thereon, should have an equivalent status to that of an exchange for each mode of execution.

Much of what is contemplated for Swap Execution Facilities is already well within the advanced technological and record-keeping capabilities of our member firms. Our technology-based reporting systems can provide the CFTC, the SEC and banking regulators with real-time trading information, affording identification of: (i) suspicious trading activities, (ii) inappropriate levels of credit and market risk in given marketplaces and (iii) critical information on overall financial conditions and market dynamics. We also provide transparency into the over-the-counter markets through the publication of market and pricing data, facilitating enhanced audit trails, to monitor against market fraud and manipulation.

While WMBA members are certainly ready, willing and able to assist regulators in monitoring market activity and reporting suspicious trading activities within each inter-dealer broker, oversight of the market should occur at an institution with a more comprehensive view of the overall marketplace. The WMBA is concerned with the requirement that Swap Execution Facilities must undertake certain SRO (self regulatory organization) enforcement type responsibilities, including discretionary supervision and approval of particular swap contracts as suitable for trading and the general oversight of the trading activities of our customers.

This is consistent with our concerns about the requirements set forth in the Treasury Department's proposed legislation for Alternative Swap Execution Facilities to adopt position limitations or position accountability for our customers. We therefore appreciate the Committee removing such a provision from the Chairman's discussion draft, because each WMBA member firm can only see the activities taking place on its platform.

Finally, we believe strongly that regulators or the relevant derivative clearing organization – and not swap execution facilities – should determine which swaps are "not readily susceptible to manipulation" and thus should be permitted to be traded on their platform. The "not readily susceptible to manipulation" standard comes from Section 2(a)(1)(C)(ii) of the Commodity Exchange Act ("CEA") and currently only applies to a limited group of futures contracts – namely security indices traded on both domestic and foreign boards of trade.[1] Under current law, both the SEC and the CFTC have to agree that this standard is met before an equity index future can trade, and both agencies typically consider a multitude of factors. Under the SEC's methodology, these factors include: (1) the number of securities off of which the price of the futures contract is derived; (2) the depth and liquidity of the secondary markets for these underlying reference securities and (3) the ability of the exchange or platform to conduct surveillance of the marketplace for the underlying securities.[2]

If such a determination is necessary before a swap trades, we recommend that the SEC and the CFTC - not a swap execution facility – make this determination. First, swap execution facilities are not capable of accessing or fully assessing comprehensive market data regarding the underlying rate, security, currency or commodity off of which comparable swaps are based. Furthermore, there are subjective judgments that would have to be made by competing execution facilities leading to different views about how susceptible various types of swap transactions may be to manipulation. As a result of these and other factors, having the SEC and the CFTC exercise this authority makes much more sense.

This is not to say that we cannot police activities on our platforms. We have the capabilities to monitor trading information for suspicious or manipulative trading activity and to report such activity to regulators or a third party that is able to develop a more comprehensive view of participants' activities in the aggregate. Additionally, our Members have each adopted procedures reasonably designed to detect and prevent violations of required trading practices. To use a simple metaphor, we can only supervise misbehavior in our own classrooms, but we cannot supervise misbehavior in other classrooms or on the playground.

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[1] The CFTC shares jurisdiction with the SEC over security futures products, but retains exclusive jurisdiction with regard to futures contracts on a group or index of securities that are not narrow-based under CEA Section 1a(25). *Board of Trade of the City of Chicago v. Securities and Exchange Commission*, 187 F.3d 713 (7th Cir. 1999) (noting that while both agencies participate in the process of reviewing applications to trade new financial futures contracts, and both must certify that it meets the statutory criteria, actual regulation of the trading process belongs exclusively to the CFTC).

[2] The CFTC's test is similar but more heavily weighs the requesting exchange's ability to access information regarding the stocks underlying the index.

Further, while all of our member firms have electronic platform capabilities, which assist in real time market control and oversight, the reality is that not all transactions benefit from being brokered and traded electronically. There are some products that require additional customer interaction to be brokered and traded due to their infrequent trading activity or particular product characteristics. This would include instances where more than one asset is traded simultaneously, such as circumstances where a bond future is executed on an exchange at the same time as the reference security itself, which is brokered OTC subject to securities laws, against an OTC interest rate derivative with similar maturity. This type of conditional cross-execution illustrates the range and complexity of the OTC environment and the absence in all cases of direct comparison with the exchange model - even though the two are interdependent.

Non-Discriminatory Access to Central Counterparty Clearing Facilities

To ensure that the markets remain efficient and liquid and that marketplaces continue to innovate, market participants need access to multiple execution platforms. We are encouraged that the legislation is now focusing on the suitability or eligibility of any given product for central counterparty clearing. Yet under a new regulatory regime that requires central counterparty clearing, there is a serious risk that central counterparty clearinghouses will create, modify and ultimately favor their own execution platforms over competing execution platforms by restricting access of competing execution facilities to their clearing operations. The Chairman's discussion draft and the Treasury Department's proposed legislation appear to have imported from the Securities Exchange Act of 1934 some of the competition and antitrust considerations relating to securities clearers in connection with the regulation of derivatives clearing organizations.

The WMBA would respectfully ask that you consider whether this is sufficient to promote and protect competition among execution platforms. A vertically integrated derivatives market, where a central counterparty providing clearing services also provides trade execution services, would be uncompetitive and ultimately hurt end users who need maximum liquidity in the market as well as other market participants. The differences between the securities and options markets on the one hand and the futures marketplaces on the other are a perfect illustration of the point.

As the Justice Department observed in a 2008 comment letter to the Treasury Department (included as an appendix to this statement), where a central counterparty clearing facility is affiliated with an execution exchange (such as in the case of US futures), that vertical integration has hindered competition in execution platforms that would otherwise have been expected to: result in greater innovation in exchange systems, lower trading fees, reduced ticket size, and tighter spreads, leading to increased trading volume and benefits to investors. As noted in the comment letter's summary, "the control exercised by futures exchanges over clearing services . . . has made it difficult for exchanges to enter and compete." In contrast to futures exchanges, equity and options exchanges do not control open interest, fungibility, or margin offsets in the clearing process. The absence of vertical integration has facilitated head-to-head competition between exchanges for equities and options, resulting in low execution fees, narrow spreads, and high trading volume.

It seems clear from recent SEC/CFTC joint hearings that the agencies charged with oversight of these markets do not want to have a vertically integrated derivatives market. When appearing before the House Agriculture Committee, CFTC Chairman Gary Gensler said that the agencies are "trying to promote competition amongst exchanges and trading venues." He continued by saying "that a clearinghouse should not be vertically integrated in such a way with an exchange or trading platform so that the only product they accept is from that exchange or trading platform." Establishing a regulatory framework that assures fungibility within the OTC derivatives market would ensure that this objective is attained.

To achieve this goal, the WMBA proposes that the resulting legislation will ensure that the central counterparty clearing companies who will be clearing derivatives trades must provide non-discriminatory access to all market participants. If the clearing entity also provides execution services, there is a tremendous opportunity and, quite frankly, an incentive for them to structure their services to squeeze out competition. Furthermore, competitors participating in the market for derivatives contracts will need access to the central counterparties to complete the transaction. If that central counterparty either directly or indirectly inhibits access to those firms, the ability to have a vibrant competitive marketplace will be severely restricted, to the detriment of end users, investors and the other market participants. In addition, such anti-competitive behavior would be very damaging to the members of the WMBA because they are in the trade execution business, and must rely on the clearinghouse to complete a cleared trade. In the equity and bond markets, the entity that provides clearing services does not provide execution services. That model has resulted in intense competition at the execution level to the benefit of all market participants.

In order to fully ensure that the central counter parties who will be clearing OTC swap transactions do not discriminate in providing access to its clearing services, the WMBA proposes that the legislation include a private right of action against any derivatives clearing organization that does not provide reasonable, non-discriminatory access to its clearing services or imposes any policy, procedure or process to the competitive disadvantage of any unaffiliated execution platform. Additionally, we would suggest that the legislation explicitly prevent any limitation on the right of any injured person to bring a civil action under the antitrust laws against a derivatives clearing organization for any anticompetitive act, practice or conduct. These would serve as effective deterrents to a derivatives clearing organization from unreasonably restraining trade or imposing an anticompetitive burden, and if such behavior were to happen, such a provision would permit a private party, whether it is an end-user, broker/dealer, inter-dealer broker, or other market participant, to prevent such unreasonable restraint from, in fact, taking place and causing irreparable harm.

Conclusion

Mr. Chairman, the discussion draft and the Treasury Department's proposed legislation are good steps towards bringing additional regulation to the over-the-counter markets and attempts to ensure that such regulation would be designed and implemented in a manner that helps to preserve the existence of a sound, efficient, liquid and more transparent OTC derivatives markets. Such a focused approach helps companies in the US and around the world to manage their risk in the safest and most cost efficient manner. We thank you and your committee for approaching this legislation with the serious attention it deserves, understanding that efficient capital and financial markets are essential for our nation's long-term prosperity. As the Committee progresses towards a new regulatory framework, we believe that the inter-dealer brokers can provide useful guidance, as we very effectively use clearing counterparties to effect our transactions and we have implemented robust record-keeping and reporting standards. The Wholesale Markets Brokers' Association, Americas looks forward to working with you to achieve these goals. Thank you for the invitation to participate in today's hearing.

APPENDIX

Comments of the Department of Justice before the Department of the Treasury
Review of the Regulatory Structure Associated With Financial Institutions
January 31, 2008

Before the
DEPARTMENT OF THE TREASURY
Washington, D.C.

Review of the Regulatory	:	
	:	
Structure Associated With Financial Institutions	:	TREAS-DO-2007-0018
	:	
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Comments of
The United States Department of Justice

The Department of Justice ("Department") is pleased to submit these comments in response to the Department of the Treasury's ("Treasury's") request for comments on the Regulatory Structure Associated with Financial Institutions, 72 F.R. 58939, October 17, 2007.

SUMMARY

Based on its extensive experience investigating competitive conditions in various financial markets, including financial futures, options, and equities, the Department believes that certain regulatory policies governing financial futures may have inhibited competition among financial futures exchanges, potentially discouraging innovation and perpetuating high prices for exchange services.(1)

More specifically, the Department believes that the control exercised by futures exchanges over clearing services — including (a) where positions in a futures contract are held ("open interest"), and (b) whether positions may be treated as fungible or offset with positions held in contracts traded on other exchanges ("margin offsets") — has made it difficult for exchanges to enter and compete in the trading of financial futures contracts. If greater head-to-head competition for the exchange of futures contracts could develop, we would expect it to result in greater innovation in exchange systems, lower trading fees, reduced tick size, and tighter spreads, leading to increased trading volume.

In contrast to futures exchanges, equity and options exchanges do not control open interest, fungibility, or margin offsets in the clearing process. This lack of control appears to have facilitated head-to-head competition between exchanges for equities and options, resulting in low execution fees, narrow spreads, and high trading volume.(2) Equities and options execution systems are also very sophisticated and feature-rich, more so than futures contract execution systems.

Although characteristics of the equities and options markets differ from those of financial futures markets, the clearing processes and related regulatory framework in equities and options markets appear to provide useful lessons in the futures arena. In light of the potential competitive benefits that could flow from regulatory changes that would facilitate competition in financial futures exchange markets, the Department recommends that Treasury propose a thorough review of futures clearing and its alternatives.

In these comments, the Department outlines its experience with competitive issues in financial markets and provides background information on futures markets. We then provide an overview of the competitive effects of exchange control of open interest, fungibility, and margin offsets, and how current policies may have inhibited execution competition. We specifically examine several failed efforts to enter financial futures markets and how efforts to enter were made more difficult by current clearing policies. We next discuss how options and equities clearing policies differ and have enabled beneficial trading venue competition. Finally, we consider whether there are significant benefits that can only be achieved under the current clearing arrangement.

I. THE DEPARTMENT OF JUSTICE'S EXPERIENCE WITH COMPETITIVE ISSUES IN FINANCIAL MARKETS

The Department's experience spans the spectrum of financial markets, including futures, over-the-counter derivatives, fixed income, foreign currency, equities and options. In various sectors, the Department has examined the underwriting process, front-end systems for delivering information and data to market participants, execution systems, clearing processes and settlement processes. We have conducted investigations of potentially anticompetitive behavior by market participants, analyzed the likely effect of proposed mergers, and reviewed claims relating to intellectual property rights. The following investigations are especially pertinent to the issues discussed herein.

Financial Futures. The Department recently conducted an exhaustive investigation of the competitive consequences of the Chicago Board of Trade's ("CBOT") acquisition by the Chicago Mercantile Exchange ("CME").[(3)] The investigation included examination of competition in futures markets, particularly financial futures where CBOT and CME both offered products.

Equities. In collaboration with the Securities Exchange Commission ("SEC"), the Department in 1996 investigated a quoting convention among Nasdaq market makers that had the effect of significantly increasing transaction costs.[(4)] Following these investigations, the SEC promulgated order-handling rules that made the securities order-execution process substantially more transparent.[(5)] The Department's recent experience also includes investigations of the Nasdaq/Instinet and NYSE/Archipelago mergers.

Options. Again in collaboration with the SEC, the Department in 2000 investigated and challenged an informal agreement among options exchanges not to list option contracts listed on another exchange.[(6)] That effort led to the widespread listing of option contracts on multiple exchanges — spurring trading volume, increasing innovation, and significantly reducing trading costs in options. [7]

II. BACKGROUND ON FUTURES AND FUTURES TRADING AND THE ROLE PLAYED BY CLEARINGHOUSES

Futures were originally developed as a means of hedging risks in agricultural commodities. In the 1970's, CBOT and CME introduced the first futures contracts on interest rate products. Their products allowed purchasers to hedge against volatility in the cost of capital and, when equity index futures were first introduced in the 1980's, to hedge against volatility in stock indices. In the recent past, futures exchanges have developed new financial futures contracts that commoditize over-the-counter ("OTC") traded products, particularly interest rate swaps and credit default swaps.

These uses of futures contracts continue today. While some traders use futures to speculate on future price movements, many others buy futures to hedge various types of risk, taking positions in futures to balance a portfolio or to minimize the risk to their portfolio from future price changes. Such hedgers seek futures products that closely match the risk profile of the positions they hold, and for them the differences between OTC products and futures in terms of cost, transparency, accessibility, and liquidity means that OTC products are only rarely good alternatives. As a result, futures contracts that address a given risk profile, the 10-year Treasury note future, for example, cater to a distinct market demand.

For buyers and sellers, the most important aspect of trading cost in futures is a contract's bid/ask spread, which is primarily a function of the availability of ready and willing buyers and sellers. All else being equal, the more buyers and sellers, the more liquid a market, and the tighter the bid/ask spread. Such "spread costs" are several orders of magnitude greater than other costs buyers and sellers incur, including separate fees paid to exchanges for executing transactions.

Once a buyer or seller has executed against a price quoted on an exchange, contract novation occurs, with the clearinghouse stepping in to be the counterparty to both sides of the transaction. This clearing process,[8] in futures as well as equities and options, involves several steps. First, unless the trade is "locked in," the clearinghouse will compare the details of the transaction between buyers and sellers (or their brokers) to ensure the terms match.[9] The clearinghouse then aggregates related transactions of each member and identifies offsetting commitments, *e.g.*, buys and sells in the same instrument, to establish a member's net liability and the net liability of the clearinghouse. Futures (and options) clearinghouses also ensure satisfaction of the terms of the contract by becoming the counterparty on each side of every trade, thus guaranteeing contract performance.[10] Clearinghouses also ensure transactions are settled.[11] Futures clearinghouses protect themselves from loss by requiring a good faith deposit (initial margin) to the clearinghouse of the member firm, and additional deposits (maintenance margin) as the value of the underlying position varies.[12] Maintenance margin is set by calculating the value of outstanding contracts and recording the value of maturing contracts. This process of "marking to market" effectively results in a revaluation (and settlement) of profits and losses of outstanding futures contracts on at least a daily basis.[(13)] By collecting additional margin, clearinghouses are able to cover prospective changes in the value of the portfolio.[(14)]

III. THE EFFECT OF CURRENT RULES AND POLICIES RELATING TO CLEARING OF FINANCIAL FUTURES ON COMPETITION AND CONSUMERS

Under the current regulatory regime, an exchange controls where a financial futures contract is cleared and whether the clearinghouse may treat contracts as fungible or eligible for margin offset. There is reason to believe that this structure, interacting with the importance to traders of exchange liquidity, makes it more difficult for exchanges to introduce new financial futures products capable of providing sustained head-to-head competition against existing products. Competition in futures markets has tended to be limited to the introduction of new products, with the competition occurring only briefly as multiple exchanges attempt to establish themselves. The typical pattern has involved one of these exchanges attracting almost all liquidity in the product, leading the other exchange to cease offering a directly competitive futures product.

If exchanges did not control clearing, an appropriately regulated clearinghouse could treat contracts with identical terms from different exchanges as interchangeable, *i.e.*, fungible. The incentives of such a clearinghouse would be to maximize its own profits, and it thus likely would treat identical contracts as fungible.[(15)] In a world of fungible financial futures contracts, multiple exchanges could simultaneously attract liquidity in the same or similar futures contract, facilitating sustained head-to-head competition. A trader could open a position on one exchange and close it on another.[(16)] In such a world, a trader could execute against the best price wherever offered without fear of being unable to exit the position because there is insufficient trading interest (or of being forced to exit at a poor price) on the new entrant trading venue when a trader chooses to exit.[(17)]

In addition, if exchanges did not control clearing, an appropriately regulated clearinghouse could reduce member margin obligations by recognizing offsetting positions in correlated financial futures contracts traded on different exchanges. The ability to offset correlated positions in a futures clearinghouse can significantly reduce the capital required to trade. For example, CME's clearing division — where the vast majority of statistically price-correlated financial futures positions are currently consolidated — offers its members margin offsets for related asset classes, thereby reducing risk collateral requirements, which results in savings to buyers and sellers unavailable on other exchanges.[(18)]

Accordingly, we would expect that a change in the regulatory regime that eliminated exchange control of the clearing function would facilitate the emergence of greater competition between exchanges. The CFTC's regulatory policies, which have permitted exchange control of clearing, are not mandated by the Commodities Futures Modernization Act of 2000 ("CFMA"). We therefore urge Treasury to propose a thorough review of futures clearing and its alternatives, including a careful examination into whether a regime more similar to that in the equities or options markets is feasible and would lead to significant consumer benefits.

A. Current Regulation and Policy on Financial Futures Clearing

Today, exchanges control clearing of financial futures contracts. The current structure of financial futures markets in the United States was put in place in the early 20th century when the Chicago Board of Trade Clearing Corporation ("BOTCC") began intermediating agricultural futures contracts on behalf of CBOT, thus assuming the risk of non-delivery from the exchange.[(19)] When futures exchanges subsequently were subject to regulation with the enactment of the Commodities Exchange Act ("CEA"), no provision of that statute expressly granted CFTC authority to regulate futures clearing. What regulation there was of clearing had developed indirectly through the CFTC's oversight of those futures exchanges that had affiliated with clearing systems.[(20)] When financial futures products were introduced in the 1970's, the CFTC maintained its approach to clearing and thereby did not prohibit the application of the then-prevailing exchange-controlled clearing model to financial futures.

The CFMA[(21)] revamped the futures regulatory structure, giving the CFTC explicit authority over clearing in futures markets and creating a new requirement that clearinghouses register with the CFTC. As a result, the CFMA, for the first time, provided for the separate regulation of execution and clearing.

The CFMA required the CFTC to conduct a study of the CEA and the Commission's rules and orders governing the conduct of registrants under the Act.[(22)] In its Report, the CFTC noted that a number of commenters had raised issues relating to clearing, including the desirability of changes in regulatory policy that would permit futures contract fungbility and require clearinghouses to be independent of the exchanges for which they clear.[(23)] The CFTC concluded that the CFMA did not mandate a change in its traditional policy of exchange-controlled clearing.[(24)] Recognizing the importance of the issue, however, the CFTC did announce a plan to conduct a roundtable of industry participants, at which the CFTC's role in encouraging competition in the futures industry, including common clearing and fungibility were to be primary issues.[(25)] At those hearings, a variety of industry participants, including representatives of the Futures Industry Association, major futures firms, and some exchanges called for an end to exchange control of clearing.[(26)] The CFTC did not take formal action in response to these requests to end exchange control of clearing, but it has since approved CBOT Rule 701.01, which required CBOT members to transfer open interest from BOTCC to CME Clearing and thereby gave CBOT ongoing control of futures contracts.[(27)]

The Department believes that adopting a regulatory policy that fosters exchange competition by, *inter alia*, ending exchange control of financial futures clearing would be consistent with the objectives of the CFMA. The CFMA directs the

CFTC to prevent the adoption of exchange or clearinghouse rules that unreasonably restrain trade or impose a material anticompetitive burden on the markets,[(28)] and directs the CFTC to facilitate the linking of futures clearinghouses with other regulated clearance facilities.[(29)] In the Department's view, these provisions reflect Congress' desire to stimulate competition between exchanges and between clearing organizations.

B. The Current Market Structure Has Impeded Successful Entry.

Under the current clearing framework, competition tends to be limited to that which occurs when a new contract, *i.e.*, one addressing a market risk not addressed or not adequately addressed by existing products, is introduced. The introduction of a new contract by one futures exchange frequently prompts another exchange to offer a similar contract, and a battle to garner all the liquidity in the contract ensues. After one exchange wins most of the liquidity in the contract, the other exchange usually exits. In its investigations, the Department has found that, in each significant financial futures contract traded in the United States, one exchange has virtually all of the liquidity. Using the 10-year Treasury note future as an example, CME has a market share of essentially 100%. The "winner-takes-all" character of futures exchange competition is a function of liquidity: the more liquid the market, the greater the chance of execution at favorable prices. As a result, the market for a particular contract will tend to concentrate on a single exchange. This in turn gives the exchange a marked advantage over smaller firms and new entrants.[(30)]

While network effects provide a significant impetus toward the concentration of trading in any particular type of futures contract on a single exchange, they are not by themselves an insurmountable barrier to competition. Liquidity network effects of this sort have been successfully overcome in financial markets where regulatory policy facilitates competition among exchanges.[(31)] In financial futures markets, however, efforts by competitors to overcome an initial liquidity disadvantage are further handicapped by the liquidity advantages of incumbent exchanges that flow from their control of clearing. Specifically, the Department believes that the control of clearing by incumbent futures exchanges prevents buyers and sellers from accessing *existing* liquidity if they trade the same (or highly correlated) contract on another exchange, thereby making it significantly more difficult for entrants to gain sufficient liquidity to provide sustained competition with the incumbent.

Efforts over the last decade by exchanges to enter the U.S. financial futures markets with products that competed head-to-head with existing products, all of which failed, show the effect of exchange-controlled clearing and the potential competitive benefits of successful entry. In a number of instances where entry has been attempted, the prospect of entry forced a substantial, but only temporary, competitive response from the incumbent exchange. These competitive responses benefitted the market, but those benefits proved transitory because, under the existing regime of clearing, the entrant was unable to establish sufficient liquidity to maintain a sustained competitive presence and exited the market.

BrokerTec's entry into Treasury futures.

BrokerTec Futures Exchange ("BTEX") was formed in 2000 as a joint venture of several large investment banks.[(32)] It listed futures and options on futures electronically in the Treasury bond and note complex, competing directly against the CBOT. An affiliated company, BrokerTec Clearing Company, cleared its transactions. BrokerTec Clearing members were allowed margin offsets for positions opened at CBOT in U.S. Treasury futures at CBOT, but CBOT did not respond to BTEX's request that it amend its margin rules to permit its clearinghouse, BOTCC, to reciprocate.[(33)] As a result, buyers and sellers on BTEX were required to bear the increased costs of posting capital for offsetting CBOT and BTEX positions when those positions were held on BOTCC, but not when those positions were held in BrokerTec Clearing. The prospect of electronic competition from BTEX spurred CBOT to enter into a joint venture with Eurex on an electronic futures trading platform in the United States, causing a significant shift to electronic trading in Treasury futures contracts, and reducing fees.[(34)] The shift to electronic trading, in turn, resulted in increased trading volume.[(35)] BTEX failed to attain any meaningful share of the Treasury futures market and was subsequently purchased by Eurex US.[(36)]

Eurex US' entry into Treasury futures.

In January 2003, CBOT announced its plan to dissolve its electronic trading platform joint venture with Eurex and obtain platform services from another vendor. Eurex in turn announced its intention to provide an electronic Treasury futures exchange in competition with CBOT once the parties' non-compete agreement expired in February 2004.[(37)] To facilitate this entry, Eurex was widely believed to be in discussions with BOTCC, which was CBOT's clearinghouse at the time, to clear its futures contracts.[(38)] This ultimately resulted in CBOT entering into an agreement with CME for clearing of CBOT traded futures.[(39)] That contract required the transfer of open interest from BOTCC to CME Clearing.[(40)] This requirement was transmitted to the CFTC on July 2, 2003, in the form of a rule proposal and approved shortly thereafter.[(41)]

Against this backdrop, Eurex's attempted entry was unsuccessful. Eurex's subsidiary, U.S. Futures Exchange, LLC. ("USFE"), was approved by the CFTC as a new exchange in February 2004 and began listing futures and options on futures on Treasury bonds and notes shortly thereafter.[(42)] Eurex invested significant funds into the Treasury product — in the form of market making and other trading incentives — in an attempt to attract liquidity to its platform.[(43)] While USFE's application to offer exchange services was pending before the CFTC, CBOT announced that it was cutting transaction fees 54% for members and 20% for non-members.[(44)] Subsequently, CBOT reduced its electronic trading fees for its U.S. Treasury complex even further — exchange members received a six-month fee waiver (effectively taking their fee to zero), and non-member fees were reduced to 30 cents per side for futures and fifty cents per side for options on futures, a reduction of about 65%.[(45)] CBOT also announced a liberalization of membership requirements to allow more firms to qualify as members and receive the lower membership fees.[(46)]

Despite these procompetitive responses by CBOT, USFE had some initial success, gaining about five percent of the market. By mid-2005, however, USFE admitted defeat, stating that its window of opportunity for Treasury products had passed and that it was turning its attention to foreign exchange futures.[(47)] Shortly after USFE's announcement, CBOT raised its fees for non-member trades by 50% and its fees for electronic transactions from three to five cents a contract.[(48)] In July 2006, CBOT raised clearing fees for its financial futures contracts.[(49)] CBOT raised exchange fees again in October 2006 for non-member trading of its Treasury complex.[(50)]

Euronext.Liffe's entry into Eurodollars

In late 2003, it was widely believed that CME would face competition from a European futures exchange in its core Eurodollar futures contract.[(51)] In anticipation of this entry, CME reduced its electronic system trading fees by 60% for CME members, clearing members and their affiliates.[(52)] It also established a market maker program on Globex — its electronic trading system — to provide market quotes after business hours, which it extended to regular business hours in March 2004.[(53)] Later it waived fees for certain large traders.[(54)] In March 2004, Euronext.Liffe announced that it planned to enter the market. Euronext's Eurodollar contracts would be available world-wide on Liffe.Connect — its electronic trading platform — and cleared through LCH-Clearnet, a London-based clearinghouse.[(55)] Margin offsets would be available with Euronext's principal contract — the European equivalent to the Eurodollar.[(56)]

By June 2004, Euronext appeared to have achieved significant success, with the execution of several large block trades that amounted to a large scale transfer of open interest in Eurodollar contracts from CME to LCH.[(57)] However, CME was able to block further transfers by adopting a rule, under its authority as a self-regulatory organization, that forbade such trades as "fictitious."[(58)] The rule was certified as consistent with the CEA by the CME, such that it went into effect immediately. Liffe challenged CME's action before the CFTC; the CFTC sought information from the parties to the dispute, but has not ruled on the merits.

Euronext.Liffe's failure illustrates the difficulty of entering U.S. futures markets against an established incumbent with entrenched liquidity. Despite Euronext.Liffe's substantial European presence and margin offset opportunities in a comparable product, its entry failed because the U.S. incumbent was able to prevent the transfer of open interest. Nevertheless, the temporary benefits of its attempted entry were substantial. In addition to a significant lowering of trading fees, Euronext-Liffe's entry resulted in significantly reduced bid-ask spreads and increased trading volume.[(59)] It also resulted in a substantial shift to electronic trading in Eurodollars.[(60)]

While Euronext continues to list Eurodollar contracts, since early 2005 it has not had a significant competitive presence in Eurodollar products, as there has been almost no open interest in Euronext's contracts and no trading volume. CME was able to raise both clearing and execution fees on August 1, 2005.[61]

* * *

One lesson of this brief history is that when entry into an existing product by a second exchange has occurred, there have been substantial beneficial effects — whether in lower prices, increased innovation, or expanded choice. Another lesson is that exchange control over open interest and clearing have impeded entry and the development of meaningful competition in execution services.[62] Given the benefits of exchange competition, examining potential changes in regulatory policy appears warranted, unless it were clear that there are no viable alternatives to the current financial futures structure or that the current structure provides overriding benefits that justify its retention. Whether there are equally good alternatives can be informed by examination of the equities and options markets, which we examine in the next section. Section D below considers whether there are clear benefits that are achievable only under the current clearing framework.

C. Equities and Options Exchanges Have Different Execution/Clearing Structures That Have Facilitated Exchange Competition

Clearing arrangements in other financial sectors facilitate exchange competition.

Options. The options market has a single regulated utility — the OCC — which serves as the clearinghouse for all exchanges and their members. The OCC was formed in 1973 when the Chicago Board Options Exchange listed the first stock option. In 1975, when the American Stock Exchange sought to offer an option on other stocks, the SEC directed that the OCC clear its trades. As a result of SEC policy, the OCC, jointly owned by the options exchanges, clears all option trades. In addition, in 1990, the SEC adopted Rule 19c-5, which permitted option exchanges to list equities options listed on another exchange.[63] The listing of options by multiple exchanges was (and is) possible because the OCC substitutes its capital and resources for those of the parties in every transaction — becoming the buyer to every seller and the seller to every buyer. Because the clearinghouse serves as the universal counterparty, market participants can open a position on one exchange and close it on another. Because contract terms are generally set by the OCC,[64] options contracts traded on one exchange are completely fungible with those traded on another.

Rather than conform to the directives of Rule 19c-5, the then-four options exchanges reached an understanding with one another to refrain from listing equity options classes that were already listed on another exchange. As a result, many frequently traded equity options were traded only on one exchange for most of the 1990s, like futures contracts are today. Since the summer of 1999, when SEC and Department investigations became public,[65] options exchanges have actively competed in the listing of equity options. The benefits of this competition have been substantial and lasting.

Two new options exchanges have entered the market, one of which — the International Stock Exchange — has become the largest options venue. Spreads narrowed by 30-40% within six months of its entry,[(66)] and have continued to fall since.[(67)] With this competition, options volume is growing rapidly. Approximately 200 million contracts trade per month, more than four times the average monthly volume in mid-1999,[(68)] and, as of 2006, all of the six options exchanges were experiencing increased growth with no single exchange having more than a third of the total volume. In addition, the average trade size has been increasing, suggesting increased involvement of institutional investors in what historically was a market dominated by retail investors.[(69)] Increases in trading volume have even occurred in times of decreasing market volatility — times when options trading historically has decreased.[(70)] Moreover, new trading systems have proliferated, execution fees have been substantially reduced, and exchanges have developed a host of service and system innovations to expedite order execution and settlement.[(71)]

Equities. In the 1960s, when regional exchanges provided alternate venues for trading stocks listed on NYSE, clearing functions were operated by each exchange, as they are now in futures markets. With the Securities Act Amendments of 1975, the SEC was directed to facilitate a national system for clearance and settlement of securities transactions. Congress' objective was that the several clearing systems be interconnected and operate under uniform rules.[(72)] Shortly after the amendments, the NYSE, Amex and NASD agreed to establish a jointly owned entity to take over their clearing operations, which led to the incorporation of the NSCC. In approving the NSCC's application for registration as a clearing agency, the SEC imposed a number of conditions, including requiring NSCC to establish appropriate links to the regional exchanges' clearing agencies.[(73)] Over time, regional exchanges have discontinued their clearing operations in favor of clearing through the NSCC.[(74)] In addition, at the SEC's direction, exchanges submitted rules which provided for the recision of any rules tying the clearance and settlement of transactions to clearing agencies affiliated with the marketplace.[(75)]

Like options market clearing, equities clearing facilitates exchange competition. When a trade occurs, the parties to the trade provide the exchange or electronic venue with the name of their registered clearing brokers who are, in the first instance, responsible for contract performance.[(76)] The transaction is then sent to the NSCC which clears for almost all equity exchanges and electronic trading venues in the U.S. Securities held by NSCC members that can be transferred within the Depositary Trust Co. are eligible for continuous net settlement at the NSCC. NSCC then becomes the counterparty to each trade, guaranteeing that both the obligation to deliver securities and the obligation to make payment. As a result, once listed on an exchange, a stock may be traded on multiple trading venues, with a market participant purchasing it on one venue and selling it on another.[(77)] The process is subject to SEC regulation.

This structure — and its regulatory overlay — permits multiple exchanges and electronic trading venues to offer the same or equivalent instruments. There is significant competition among multiple equity trading venues, with low execution fees, narrow spreads, and widespread system innovation — all to the benefit of consumers.[(78)] One study found that the NYSE's entry into trading of ETFs led to double-digit percentage declines in bid-ask spreads.[(79)]

The Department recognizes that there are significant differences in equities, options and futures trading. Nevertheless, the experience in options and equities markets appears to provide useful lessons for the potential role of exchange competition if regulatory policy relating to clearing by a futures exchange were changed.

D. There Do Not Appear to Be Any Overriding Benefits of Preserving the Current Regime of Futures Clearing.

The Department is aware of three principal arguments in favor of the current regime of exchange controlled clearing in futures markets: (1) that sufficient reward to promote innovation can only be assured if replica contracts are kept off the market and that exchange controlled clearing helps achieve that objective;[(80)] (2) trading of futures on multiple exchanges could adversely affect traders by fracturing liquidity and diminishing market depth; and (3) the current system minimizes the risk of default.

The first contention, that the current structure is necessary to provide exchanges an incentive to innovate new futures contracts, boils down to the contention that competition is inconsistent with incentives to innovate. In fact, however, experience indicates that competition can spur firms to innovate by developing new products or making their existing products more attractive (including though product change as well as reduced prices and improved quality).[(81)] Thus, any study of regulatory change that would eliminate exchange control of clearing would need to consider the important incentives that may be created by competition.

A second argument offered in favor of preserving the current regime is that a change in regulatory policy that would facilitate the trading of futures contracts on multiple exchanges would adversely impact buyers and sellers by fracturing liquidity, diminishing market depth and price transparency, and by making it more difficult for buyers and sellers to find the best price to execute transactions. The market response to Eurex's and Euronext.Liffe's suggests that such concerns are not well founded. In both cases, new entry coincided with substantial *increases* in trading activity in the products traded.[(82)] Experience with new entrants in the options and equities markets is to the same effect. In each case, market volumes increased and all indicators of market performance — fees, volume, spreads — either improved or did not change. Indeed, experience in options markets suggests that the likely effect of a change would be significantly lower exchange fees, narrower spreads, and greater trading volume.

A third argument is that the current system reduces risk to the market of participant default as transparency of market exposure is enhanced when related market positions of individual customers can be captured in one place. Exchange control of where products are cleared, however, does not appear necessary to achieve this result. Both the options and equities models have successfully protected investors from default.(83)

IV. CONCLUSION

The Department believes that current rules and policies related to clearing futures contracts may be unnecessarily inhibiting competition among futures exchanges in the development and trading of financial futures contracts, to the detriment of the economy and consumers. Unnecessary restraints on competition threaten the ability of the U.S. financial markets to adapt to changing dynamics, including the increasingly global nature of those markets.

The Department believes that significant benefits might be achieved if regulatory policy were changed so as to foster exchange competition by, *inter alia*, ending exchange control of clearing (in conjunction with appropriate regulation to ensure that clearinghouses could not in turn exercise market power). The clearing structure and regulatory framework in the equities and options markets are instructive. If regulatory policies that encourage and facilitate exchange competition were adopted, futures clearinghouses would likely clear for multiple exchanges and treat identical contracts as fungible.(84) Futures exchanges would, in turn, compete in terms of price, quality of execution systems and the speed and completeness of information available to market participants. Futures markets would become more transparent and market risk would likely be more widely distributed as new participants are attracted to trading opportunities in the futures markets. The Department therefore recommends that Treasury undertake a careful and objective review of exchange-controlled clearing of financial futures, the regulatory structure that underlies it, and its alternatives.

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FOOTNOTES

1. Our comments are directed solely at competitive issues raised by financial futures markets. Markets for commodities futures, such as energy futures markets, are outside the scope of this comment.

2. As discussed below, clearing in options is through the Options Clearing Corp. ("OCC") and clearing in equities is largely through the National Securities Clearing Corp. ("NSCC"). The Department, in filing this comment, does not address the competitiveness of *clearing markets* in equities, options, or futures. Rather, the focus of this comment is on the effect current futures clearing policy has on the competitiveness of trade execution markets.

3. The Department ultimately determined that, although the two exchanges account for most financial futures (and, in particular, interest rate futures) traded on exchanges in the United States, their products are not close substitutes, seldom competed head-to-head, and that the parties were unlikely to introduce new products that competed directly with the other's existing products. *See Statement of the Department of Justice Antitrust Division on its Decision to Close Its Investigation of Chicago Mercantile Exchange Holdings Inc.'s Acquisition of CBOT Holdings, Inc.*, June 11, 2007 (http://www.usdoj.gov/atr/public/press_releases/ 2007/223853.htm).

4. *United States v. Alex Brown & Sons, Inc. et al.*, Civ. No. 96-5313 (S.D.N.Y. filed July 17, 1996). U.S. Securities Exchange Commission, *Report Pursuant to Section 21(a) of the Securities Exchange Act of 1934 regarding the NASD and Nasdaq Market* August 8, 1996.

5. S.E.C. Release 34-37619A, *Order Execution Obligations* 1996 WL 506154 at 9 and 27 (S.E.C. Sept. 6, 1996) (discussing the investigations). The Limit Order Display Rule requires that market makers display investors' limit orders when they are priced better than the market maker's quote. The Quote Rule requires market makers to publically display their most competitive quotes.

6. *United States v. American Stock Exchange, LLP, et al.*, Civ. No. 00-2174 (D.D.C. filed September 11, 2000) and SEC Release 43,268 *Order Instituting Public Administrative Proceedings Pursuant To Section 19(h)(1) Of the Securities Exchange Act Of 1934* (S.E.C. Sept. 11, 2000).

7. *See* Patrick De Fontnouvelle, Raymond P.H. Fishe, and Jeffrey H. Harris, *The Behavior of Bid Ask Spreads and Volume in Options Markets During the Competition for Listings in 1999* 58 J.of Fin. No. 6 (Dec. 2003) and S.E.C. Release 34-49175, *Concept Release: Competitive Developments in the Options Markets* 69 FR 6124 (S.E.C. Feb. 3, 2004).

8. Clearing is performed by an organization (or clearing division of an exchange) created to clear and settle all the transactions within a market or on an exchange. Its members (usually large securities firms) deal directly with the clearinghouse but also act as intermediaries for other securities firms in clearing their trades.

9. Matching is unnecessary for locked in trades. Almost all equities trades are locked in when reported to the clearinghouse, because the terms of trade are captured by the electronic system on which the trade occurs. Many options trades and futures trades are also locked in.

10. To fulfill this role, the clearinghouse maintains a list of traded products, trade terms and persons eligible to trade each product.

11. Settlement is a reference to completion of a transaction by, in equities, delivery of securities to the buyer and payment to the seller or, in futures and options, carrying out the terms of the contract or offsetting it. The vast majority of futures contracts are closed out before they reach expiration as the risk exposure of the holder changes and settled for the difference in cash value between the future and the underlying asset. For those that expire, *i.e.*, mature, they may be either cash settled, like the Eurodollar futures contract, or require delivery, like various Treasury futures, depending on contract terms.

12. In futures markets, both the buyer and seller must provide initial and maintenance margin. In options markets, only the writer of the option must do so. Clearinghouses will engage in various forms of market surveillance to manage and contain risk to the market.

13. By comparing a commodity's settlement price yesterday versus its settlement price today a clearinghouse can establish a value for outstanding futures contracts and determine whether changes in market value require further contributions to a member's margin account.

14. CME's clearing division alone held more than $46 billion in performance bonds in 2005. Whereas security deposits serve as a back-up source of funding in the event of a clearing member default, margin or performance bond requirements are the principal guarantor of performance

15. Indeed, in 2003, the Board of Trade Clearing Corporation ("BOTCC") sought to position itself to clear futures contracts for more than one exchange. *See* note 39, *infra*. One way in which regulators have fostered independent clearing is by prohibiting tying of clearing services to trade execution services, as the SEC has done with equities. *See* note 75 and accompanying text, *infra*.

16. When a clearinghouse assumes the performance obligation, by substituting its capital and resources for those of the parties to the initial transaction, market participants become indifferent to the creditworthiness of the opposite party to the trade and can base their buy or sell decision on other considerations. Because the clearinghouse serves as the universal counterparty, market participants can close out their positions and exit the market without having to seek out the original parties (or the original exchange) to their opening trades. This buying and selling of contracts that have not matured — the "open interest" in that instrument — constitutes the secondary market for that instrument.

17. The liquidity advantage has been made less significant in equities markets by trading venue guarantees to route transactions to markets with the best prices.

These sophisticated routing systems have effectively linked the liquidity on different venues creating a single "virtual" liquidity pool.

18. When CME and CBOT combined their open interest in 2003, they claimed that the combination resulted in $1.4 billion reduction in performance guarantees for its members and $200 million in reduced security deposits. *Q3 2003 Chicago Mercantile Holdings, Inc. Earnings Conference Call*, Fin. Disclosure Wire, Nov. 5, 2003, at 8. Consolidated clearing offers other efficiencies, including reductions in clearing fees, the cost and frequency of collateral movements, the number of bank transfers, the cost of intraday funding, systems development and maintenance, and employee training costs associated with having to interface with multiple, discrete clearing systems.

19. *See* James T. Moser, *Contracting Innovations and the Evolution of Clearing and Settlement Methods at Futures Exchanges* Federal Reserve Bank of Chicago, Working Paper 98-26 (August 1998).

20. The President's Working Group on Financial Markets Report, *Over-the Counter Derivatives Markets and the Commodity Exchange Act* Nov. 1999 at 15.

21. The CFMA generally followed the recommendations contained in the Working Group's report. Congressional Research Service Report, *The Commodities Futures Modernization Act (P.L. 106-554)* Cong.R.S. 20560 (Feb. 3, 2003) (http://www.assets.opencrs/rpts/RS20560-20030203.pdf).

22. 7 U.S.C. §1 *et seq*. (2000).

23. U.S. C.F.T.C., *Report on the Study of the Commodity Exchange Act and the Commission's Rules and Orders Governing the Conduct of Registrants Under the Act* (C.F.T.C. June 2002) at 23-24 (http://www.cftc.gov/files/opa/opaintermidiarystudy.pdf).

24. *Id.* at 24. It concluded that: "The Act and Commission rules do not prevent the adoption of fungibility or common clearing. Nor do they require that the Commission mandate them."

25. *Id.* at 24. The CFTC Chairman at the time, James Newsome, saw efforts to move the industry to common clearing and fungibility as a business issue that he preferred the opposing sides (futures commission merchants and futures exchanges) work out between themselves. Richard Tsuhara and John McPartland, *Clearing Structure of the Derivatives Markets: We're Not in Kansas Anymore* 23 Futures & Derv.L.R.1, 4, Oct. 2003.

26. U.S. C.F.T.C., *Roundtable on Derivatives Clearing Organizations* (C.F.T.C. Aug. 1, 2002) (http://www.cftc.gov/stellent/groups/public/@aboutcftc/doocument/file/gmac_060604_transcript.pdf).

27. C.F.T.C. Release 4821-03, *CFTC Announces Approval of Exchange Rules Implementing CME/CBOT Common Clearing Link* (C.F.T.C. July 15, 2003)

(http://www.cftc.gov/opa/press03/opa4821-03.htm).

28. Core Principle 18: Antitrust Considerations — Unless necessary or appropriate to achieve the purposes of this chapter, the board of trade shall endeavor to avoid —

A. adopting any rules or taking any actions that result in any unreasonable restraints of trade; or

B. imposing any material anticompetitive burden on trading on the contract market.

29. The CFMA added Sec. 5b(f)(1) to the CEA Act which provides: "The Commission shall facilitate the linking or coordination of designated clearing organizations registered under this Act with other regulated clearing facilities for the coordinated settlement of cleared transactions."

30. Trading on a single exchange can also reduce market participant costs by facilitating "spread trading," the taking of simultaneous offsetting positions in two correlated products, in effect betting on the relative price movements (or "spread") between the two products. Currently, traders can conduct spread trades across different exchanges' products by using third-party trading software. Such third-party supported spread trading entails, however, "execution risk," the possibility that one leg of the spread trade will not find a counterparty. When both products that compose the spread are offered on a single exchange, execution risk can be eliminated by allowing the offsetting transactions to trade as a single product, such that neither leg executes unless both execute.

31. In two years, BATS has acquired approximately 10% of equities trading volume. Luke Jeffs, *BATS Eyes European Markets* FinancialNewsOnlineUS, Oct. 29, 2007 (http://www. financialnews-us.com/?contentid=2449054173&page=ushome). In the options markets, the International Stock Exchange entered in 2000 and by April 2003 had become the largest U.S. equities options exchange. *ISE Secures Position As Largest US Options Exchange* Mondo Visione, May 2, 2003 (http://www.mondovisione.com index.cfm?section=news&action detail&id=423113)

32. Richard Tsuhara and John McPartland, *Clearing Structure of the Derivatives Markets: We're Not in Kansas Anymore* 23 Futures & Derv.L.R.1, 3-4,Oct. 2003.

33. Christopher Faillo, *New Leaders at BrokerTec Clearing Co.* Hedgeworld Oct. 2, 2002, (2002 WL 276971). BOTCC processed trades for BTEX members on a contract basis, but did not guarantee performance. *BrokerTec To Launch Futures Trading* Secs. Week Vol. 28 Issue 45 Nov. 12, 2001 (2001 WLNR 2076105). BOTCC is now known as The Clearing Corporation.

34. *BrokerTec Futures Shuts Down After Two Years* Secs. Week Vol. 30 No. 46 Nov. 17, 2003 (2003 WL 3215306). Electronic trading accounted for only about 20% of the volume of CBOT Treasury bond and note futures in late 2000. By the end of 2001, almost 45% was electronically traded. Gordon Platt, *Chicago faces*

bleak future as online trading deposes open outcry system Global Finance Vol. 16. Issue 2 Feb. 1, 2002 (2002 WLNR 11583314).

35. Electronic execution makes futures trading more attractive because it increases the certainty of a trade at a desired price, thus making it easier to hedge. Gordon Platt, *Chicago faces bleak future as online trading deposes open outcry system* Global Finance Vol. 16. Issue 2 Feb. 1, 2002 (2002 WLNR 11583314).

36. *See* John Lothian, *Eurex US's Great Trade that Benefitted the Industry,* June 24, 2005 (http://www.pricegroup.com/newsletter/062405.htm).

37. Jeremy Grant, *Eurex to launch new derivatives exchange in U.S.* Financial Times UK, Jan. 10, 2003 (2003 WLNR 8225039). Euronext.Liffe was announced as the new platform provider for CBOT. *Id.*

38. Nothing prevented BOTCC from treating Eurex products as fungible with CBOT's, or from allowing members to offset, in their margin accounts, positions taken in Eurex contracts with those taken in CBOT Treasury contracts. *CBOT in talks with BOTCC over Contract* FT Investor Feb. 14, 2003.

39. CBOT demanded BOTCC enter into an exclusive clearing agreement (thereby protecting the open interest that had originally been executed on the CBOT exchange). When BOTCC did not respond, CBOT began negotiating with CME. *Eurex is said to be 'in talks' with almost everyone — but nobody's talking* Secs. Week Vol. 30 Issue 19 May 12, 2003 (2003 WLNR 3220693).

40. Sections 8 and 10.5 of the Clearing Services Agreement, April 16, 2003. (Available, in redacted form, as Exhibit 10.3 to Chicago Mercantile Exchange Holdings, Inc. Form 10-Q (http://www.sec.gov/archives/edgar/data/1156375/000104746903027031/a2116188zex-10_3.htm). Section 3.3 of that agreement gave CBOT sole authority to determine whether contracts initially traded on CBOT could be risk offset or treated as fungible with any other exchange's contracts.

41. C.F.T.C. Release 4821-03, *CFTC Announces Approval of Exchange Rules Implementing CME/CBOT Common Clearing Link* (C.F.T.C. July 15, 2003) (http://www.cftc.gov/opa/press03/opa4821-03.htm).

42. C.F.T.C. Release 4886-04, *CFTC Designates New Exchange* (C.F.T.C. Feb. 4, 2004) (http;//www.cftc.gov/opa/press04/opa4886-04.htm). Eurex went forward with its plans, notwithstanding the transfer of CBOT's open interest to CME, apparently on the expectation that it would be able to undercut CBOT's execution fees and offer market participants the ability to offset its U.S. product offerings with its European parent's product offerings. Its proposal to create a single collateral pool for U.S. and European products was never approved by the CFTC. Terry Stanton, *Eurex to offer FX Futures* Hedgeworld Daily News June 16, 2005 (2005 WLNR 9582048).

43. David Roeder, *Eurex Planning to Take on Merc in Currency Trade* Chicago Sun Times June 17, 2005.

44. Jeremy Grant,*CBOT to cut fees to fend off Eurex* Financial Times Oct. 21, 2003 (2003 WL 64595399).

45. Daniel Collins, *Eurex US is approved; Chicago operation launched* Futures Vol. 33 Issue 4 Mar. 1, 2004 (2004 WLNR 14802623).

46. *New CBOT Rule Allows CPOs and Large Funds to Become Exchange Members* Sec. Week Vol. 30 Issue 36 Sept. 8, 2003 (2003 WLNR 3171430).

47. Yesenia Salcedo and Daniel Collins,*Eurex US Moving Into Forex* U.S. Futures Magazine Vol.34 No. 10 Aug. 1, 2005 (2005 WLNR 13603573). In August 2006, Eurex sold 70% of USFE to ManGroup PLC. In announcing the deal, executives of ManGroup stated that they planned to focus USFE trading on new products, not traded elsewhere. US Futures Exchange Press Release, *Media Release of Man Group plc and Eurex* July 27, 2006 (http:// www.usfe.com/press.html).

48. Andrei Postelnicu,*CBOT lifts fees for US Treasury Contracts* FinancialTimes UK Aug. 30, 2005 (2005 WLNR 13587617).

49. *CBOT raising grain trading, clearing fees* Chicago Tribune June 1, 2006 (2006 WLNR 9380499).

50. CBOT Press Release, *CBOT announces Modifications to fee Schedule* Aug. 21, 2006 (http://cmegroup.mediaroom.com/index.php??s=43item=487).

51. Eurex was the exchange most thought would begin offering a Eurodollar futures contract. *Eurex v. Chicago at FIA Expo* Sec. Week Vol. 81 Issue 229 Nov. 10, 2003 (2003 WLNR 3183626). *See also,* Alex Skorecki, *Eurex plans US Treasury Trades,* FinancialTimes UK Sept. 11, 2003 (2003 WLNR 8179406). A Eurodollar future is based on a $1 million three-month deposit of U.S. dollars in overseas financial institutions, paying interest at the London Interbank Offered Rate.

52. Alex Skorecki, *Capital Markets & Commodities* FinancialTimes UK Dec. 4, 2003 (2003 WLNR 8218591).

53. Yiuman Tse and Paramita Bandyopadhyay, *Multi-market trading in the Eurodollar futures market* 26 Rev.Quant.Finan.Acc. (2006) 321, 325.

54. *Id.*

55. Isabelle Clary, *Liffe Launches Euodollars* Sec. Industry News March 15, 2004 (2004 WLNR 3349887)

56. Alex Skorecki, *Capital Markets & Commodities* FinancialTimes UK Mar. 16, 2004 (2004 WLNR 9741215).

57. The trades involved essentially simultaneous, equal and opposite transactions to close a Eurodollar position on CME and to open a Eurodollar position on Euronext.

58. CME Submission No. 04-61a, *Rule 432.D Interpretation* July 9, 2004 (http://www.cftc.
gov/files/submissions/rules/selfcertifications/2004/rul070904cme001.pdf).

59. *See* Tse and Bandyopadhyay, *supra*, note 53. Effective bid-ask spreads on Globex, CME's electronic platform, were reduced by approximately 30% in the seven months after Euronext's entry. *Id.* at 335. Average effective bid-ask spread for the period June 2003 to February 2004 were 7.43 percent, using one mechanism for calculation, and 7.52, using another. For the period March 2004 through September 2004, the effective bid-ask spreads were 5.23 and 5.24, respectively. *Id.* In addition, monthly average trading volume increased by 44 percent on CME, with a significant shift of trading volume to electronic systems. *Id.* at 329. Floor trading volume actually decreased 22%, while Globex trading volume increased 860%. *Id.*

60. In January 2004, 9.6% of Eurodollar contracts were traded electronically at CME. In November 2004, eight months after Euronext's entry, 75% were traded electronically. Jeremy Grant, *Capital Markets & Commodities* FinancialTimes UK Nov. 25, 2004 (2004 WLNR 12196384).

61. Sarah Rudolph, *CME Stock Prices Jump After Fee Hikes, Record Volumes* Sec. Week Vol. 32 Sec. 23 June 6, 2005 (2005 WLNR 12839370). In discussing the increase, a member said the move was a sign CME "feels pretty confident about beating Liffe at Eurodollars." *Id*.

62. These issues were also addressed by the European Competition Commission during its review of Deutsche Borse AG and Euronext AV proposals to acquire the London Stock Exchange plc. It concluded that full fungible access to an incumbent exchange's clearing services is critical to successful entry into trade execution. Competition Commission, *A Report on the Proposed Acquisition of the London Stock Exchange plc by Deutsche Borse AG or Euronext AV* Nov. 26, 2005 at 6.

63. 17 C.F.R. §240.19c-5.

64. The terms of stock options contracts are effectively standardized. The terms of other options — like those on indices and on exchange traded funds — are established in consultation with the first exchange listing the option. Absent protected intellectual property rights, other exchanges may offer an option contract on the same terms.

65. The Department's investigation led to the filing of a complaint against those exchanges for violations of the Sherman Act, 15 U.S.C. § 1, and a settlement through the filing of a consent decree. *United States v. American Stock Exchange, LLC, et al.*, Civ. No. 00-02174 (D.D.C. filed Sept. 11, 2000). The complementary SEC action may be found at SEC Release 43,268, *Order Instituting Public Administrative Proceedings Pursuant To Section 19(h)(1) Of the Securities Exchange Act Of 1934* (S.E.C. Sept. 11, 2000).

66. Patrick De Fontnouvelle, Raymond P.H. Fishe, and Jeffrey H. Harris, *The*

Behavior of Bid Ask Spreads and Volume in Options Markets During the Competition for Listings in 1999 58 J.of Fin. No. 6 (Dec. 2003);

67. Battalio, Robert, Brian Hatch and Robert Jennings, *Toward a National Market System for U.S. Exchange Listed Stock Options* 59 J.of Fin. No 2 (April 2004). Multiple listing was followed by regulatory changes that have furthered competition in options trading, including rules that have linked option markets and moved the industry from fractions of a dollar to decimals. Equity options markets are in the final phases of a transition to pennies as the minimum trading increment, down from five cents. *See* U.S. Gov't Accountability Office Report 05-535, *Securities Markets: Decimal Pricing Has Contributed to Lower Trading Costs and a More Challenging Trading Environment* (U.S. G.A.O. May 2005) at 60.

68. *The Options Clearing Corporation Announces Options Trading Volume Surpasses 2006 Annual Record* Market Wire Oct. 2, 2007. (More than 2 billion contracts traded in the first nine months of 2007).

69. Jim Binder,*Raising the Volume: The Explosive Growth of Exchange-Listed Options in the U.S.* Futures Industry Sept./Oct. 2006 at 36.

70. *Id*. at 38.

71. *See* S.E.C. Release 34-49175, *Concept Release: Competitive Developments in the Options Markets* 69 FR 6124 (S.E.C. Feb. 3, 2004). Competition in option trading was further increased by the move to decimal trading increments and a series of order handling reforms imposed by the SEC as a consequence of its investigation.

72. Section 17A(a)(1) of the Securities Exchange Act of 1934, 15 U.S.C. §78q1(a)(1).

73. S.E.C. Release No. 13,163, *In re the Application of Nat'l Securities Exchange Corp. For Registration* 42 Fed. Reg. 3916 (S.E.C. Jan. 13, 1977).

74. The clearing registrations of a number of regional clearing firms, that of the Philadelphia Stock Exchange, for example, remain outstanding, but are effectively dormant.

75. S.E.C. Release No. 14636, *Order Approving Rule Changes Amending Transaction Completion Rules* 1978 WL 196700 (S.E.C. April 7, 1978).

76. Major electronic equity trading venues provide trade anonymity which requires that they interpose themselves as the counterparty to both sides of every transaction. For these trades, a clearing name is provided by the trading venue.

77. The terms of contracts in specialized securities — like shares of an exchange traded fund — are controlled by the originating fund, subject to SEC approval of the listing and contract terms. Once established, any exchange can list the ETF for trading, absent intellectual property rights that would permit listing constraints.

78. *See* Commissioner Annette L. Nazareth, Speech, *Remarks Before the Securities Industry Association Options Market Structure Conference* (New York, N.Y. Oct. 24, 2006) (http://www. sec.gov/news/speech/2006/spch102406aln.htm).

79. *See* Beatrice Boehmer and Ekkehart Boehmer, *Trading Your Neighbor's ETFs: Competition or Fragmentation?* AFA 2003 Washington, D.C. Meetings Discussion Paper (January 2003).

80. Neal Wolkoff, Speech, *Customer Choice" in the Selection of a Clearing House*, Futures Industry Association's International Futures Industry Conference Mar. 13, 2003 (http://www.nymex.com/cur_article_031303.aspx).

81. *See* Dennis W. Carlton and Jeffrey M. Perloff, *Modern Industrial Organization*, Fourth Edition (2005) Chapter 16 Pearson (Addison Wesley): Boston.

82. *See* Tse and Bandyopadhyay, *infra*, note 53, and *Eurex US to Charge Flat Fee For Treasury Futures Trades* Oster Dow Jones Select Dec. 3, 2004. (CBOT Treasury futures trading volume increased 65.4%, Nov. 2003 to Nov. 2004).

83. Although exchanges have argued that they have an interest in selecting a sound clearinghouse to protect the public's faith in their contracts, an exchange has, at best, a secondary interest in the issue. Clearinghouses act as every trader's counterparty and, as a result, the clearinghouse has the greatest interest in protecting against trader defaults.

84. As discussed below, the options regulatory policy has resulted in the mandated use of a single clearinghouse by all options exchanges. In equities, SEC policy has permitted use of multiple, linked clearinghouses, and allowed clearing intermediaries a more substantial role.