Futures Exchanges: Challenges and Opportunities

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Introduction

- I’m delighted to be here today to talk with you about the challenges and opportunities facing derivatives exchanges, in general, and futures exchanges in particular.
- As we celebrate 10 years of futures trading in Korea it is appropriate to reflect on where the futures industry was a decade ago, where it is today and where the futures industry is likely to go over the next several years.

Introduction

- The outlook for the futures industry remains strong with substantial growth in trading volume likely.
- The outlook for individual futures exchanges is more mixed amid a continuing wave of consolidation among financial exchanges.

Where We Were A Decade Ago

- A decade ago, most futures contracts on U.S. markets were pit traded. The open outcry London International Financial Futures Exchange dominated trading in the bund futures complex over its electronically traded rival the Deutsche Termin Börse.

Where We Were A Decade Ago

- By 1997, the DTB was closing in on LIFFE in the bund complex. By 1998 DTB dominated LIFFE.
- The introduction of parallel electronic and open outcry trading on the MATIF led to the end of open outcry trading within a month.

Where We Were A Decade Ago

- The sudden success of electronic markets in displacing open outcry markets sent a shockwave through the pits in Chicago.
- Chicago responded such that by the time that Eurex US started the majority of CBOT Treasury bond futures trading was electronic and a majority of trading on the Chicago Mercantile Exchange was electronic.

Where We Were A Decade Ago

- A number of open outcry exchanges went electronic like the Sydney Futures Exchange and later LIFFE.
- Virtually every new futures exchange was electronic.

Where We Are Today

- During 2005 almost 9.9 billion derivatives were traded on exchanges around the world.
  - Almost 1 in 4 were traded in Korea.
- During 2005 almost 4 billion futures contracts were traded on exchanges around the world.
  - Approximately, 40% were traded in the U.S.
  - Large futures markets exist in Brazil, India, Mexico, China, Korea and Japan.
  - Financial futures accounted for most volume.

Where We Are Likely to Go

- There are a number of forces that are impacting the futures markets. These include:
  - Electronic trading
  - Demutualization
  - Exchange consolidation
  - The growth of hedge funds
  - Algorithmic trading
  - New Markets—real estate indices, event markets etc.
  - The growth of Non-U.S. futures markets.

Electronic Trading

- Electronic trading is likely to lead to even lower transaction costs which, in turn, will increase trading volume.
- It will also make competing transaction venues more of a commodity business.
- Not all electronic trading systems are created equally.
  - Trading halts

Who Regulates Electronic Markets?

- Who should regulate futures markets in an electronically traded market environment?
- Conflicting regulations may give one exchange an advantage over another.
- Regulatory arbitrage.
  - Example: CFTC exemption of FSA regulated IPE before it was acquired by ICE and became electronically traded.
  - Position limits on crude oil futures contracts.

Who Regulates Electronic Markets?

- The 2005 decision of the ICE to offer competing electronically traded West Texas Intermediate Crude Oil futures contracts resulted in ICE capturing a substantial fraction of total WTI trading volume from the NYMEX in a short period of time.
  - ICE's fraction of WTI trading volume understates ICE's success.

Who Regulates Electronic Markets?

- ICE caters to institutional traders.
  - Facilitates spread trading between Brent crude oil and WTI
  - Larger position sizes
- NYMEX could not compete with ICE over position limits.

Who Regulates Electronic Markets?

- The rapid success of ICE in trading WTI crude oil futures led NYMEX to decide to list its contracts on the CME's GLOBEX electronic trading platform for 10 years.
  - Partial functionality—spread trading

Who Regulates Electronic Markets?

- The issue of who regulates electronic markets is not confined to competing futures markets with different regulatory masters.
- Consider another example that cuts across both securities and futures markets.

Electronic Trading Games: Citigroup Bond Trading August 2004

- On August 2, 2004, Citigroup bought 66,214 futures contracts on Eurex between 9:17 and 10:29.
- The futures position was equivalent to 55,000 bund futures contracts.

Electronic Trading Games: Citigroup Bond Trading August 2004

- On August 2, 2004, Citigroup sold €11.3 billion of euro-zone government bonds on the MTS cash bond trading platform in the space of 18 seconds between 10:28 and 10:29 by hitting most of the bids that rival dealers were obligated to make.

Electronic Trading Games: Citigroup Bond Trading August 2004

- Amount sold by Citigroup equaled the average daily trading volume on the MTS trading platform.
- Around the same time, Citigroup sold another approximately €1.5 billion of euro-zone bonds elsewhere to bring total sales to €12.9 billion.

Electronic Trading Games: Citigroup Bond Trading August 2004

- Citigroup was net short €3.8 billion. This position was covered at 11:25 at substantially lower prices.

Electronic Trading Games: Citigroup Bond Trading August 2004

- Intended trade by Citigroup was a basis trade—short futures long bonds covered by buying futures on EUREX and selling bonds on the MTS to exploit liquidity.
- Citigroup made an estimated $18.2 million from the various trades.

Electronic Trading Games Citigroup August 2004

- Did Citigroup attempt to manipulate the market?
- There is a disagreement among regulators.

Electronic Trading Games
Citigroup August 2004

- The United Kingdom's Financial Services Authority concluded that Citigroup "executed a trading strategy … which … caused a temporary disruption to the volumes of bonds quoted and traded on the MTS platform, a sharp drop in bond prices and a temporary withdrawal by some participants from quoting on that platform."

Electronic Trading Games Citigroup August 2004

- On June 28, 2005, Financial Services Authority announced that Citigroup agreed to pay £14 million in fines and forfeited profits for the MTS trades.
  - Fine: £4 million
  - Forfeited profit: £9.96 million.

Electronic Trading Games
Citigroup August 2004

- The German financial regulator, Bafin, argued that there was sufficient evidence that Citigroup attempted to manipulate the Eurex futures market.
- The prosecutor disagreed and no charges were brought by the German authorities for the Eurex bond futures trades.

The Search for Alpha

- The search for alpha has led many hedge funds to develop new trading strategies in a search for profit opportunities in the futures markets.
- This trend is likely to continue and will add to total trading volume.
- Implications

Algorithmic Trading

- Closely related to the growth of the impact of hedge funds is the growth of algorithmic trading strategies—that attempt to exploit minor and usually transient deviations in market prices.
- Implications

Demutualization

- The listing of financial exchanges on stock markets reflects another major trend that is likely to continue.
- This trend will facilitate consolidation.

Exchange Consolidation

- Electronic trading has increased the pressure to consolidate smaller futures exchanges to spread fixed costs over a greater trading volume.
- This trend will continue.

Exchange Consolidation

- Exchange consolidation has not only been among futures exchanges but also among securities and futures markets. Sometimes this is done by fiat as the government decides to consolidate exchanges. Sometimes it is done by market forces.
- Recent merger deals provide insights into what the market is valuing and why.
  - NYSE and Euronext.

The Exchange Merger Game

- The NYSE has acknowledged that its interest in acquiring Euronext is in acquiring the derivatives portion of the exchange (i.e., LIFFE).
- Why? Because that is where the growth is.

Exchange Consolidation: What is the Market Valuing?

- The Chicago Mercantile Exchange has the largest market capitalization of any financial exchange in the world. Why?
- Why haven't the NASDAQ and the NYSE performed as well as the futures exchanges?
- Why haven't the International Securities Exchange (ISE) or the CBOE performed as well as the futures exchanges?

Exchange Consolidation: What is the Market Valuing?

- The exchange sector is hot. But, securities exchanges, option exchanges and futures exchanges are not equally hot.

The Value of an Exchange

- Transaction fees
- Sale of real-time market data
- Clearing
- Other—real estate, membership fees, etc.

Securities Clearing

- Securities clearing can be viewed as a one-off event. It is essentially a process of transferring title.
- There is no continuing relationship between the clearinghouse and either party to the contract.
- Once a transaction is cleared I don't care who cleared it.

Derivatives Clearing

- Derivatives clearing—the clearinghouse has a continuing relationship between both parties to the contract for the life of the contract.
- No right of offset for transactions in like commodities across exchanges.
- Most derivatives are not fungible.
- No incentive to make derivatives fungible for exchanges who command a dominant market share.

Derivatives Clearing

- In the pit traded world there were often no effective competitive trading platforms.
- In the electronic trading world there are.

Clearing: Open Interest is Key

- As a result, with derivatives clearing open interest is key not trading volume.
- Should competing futures contracts be fungible?

Non-U.S. Futures Markets

- The spectacular growth of futures markets outside the U.S. is likely to continue.
- Implications

New Futures Markets

- There are several promising areas of new products. These include credit, real estate and event markets among others.
- Some of these products like event markets have the potential to capture a significant fraction of total trading volume in a few years.
- Implications

Conclusions

- The future of the futures industry looks very strong. Global trading volume will likely continue to increase sharply with the continued expansion of non-U.S. markets and the introduction of new products.
- There are likely to be fewer futures exchanges in the coming years. These will be larger and stronger.