

36 South Breakfast

Profile of the U.S. Listed Equity Options Market

Zurich

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The Options Industry Council (OIC)

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www.OptionsEducation.org

Disclaimer

Options involve risk and are not suitable for everyone. Prior to buying or selling an option, a person must receive a copy of *Characteristics and Risks of Standardized Options*. Copies have been provided for you today and may be obtained from your broker, one of the exchanges or OCC, One North Wacker Drive, Suite 500, Chicago, IL 60606 or call 1-888-OPTIONS or visit www.OptionsEducation.org.

For the sake of simplicity, the examples that follow do not take into consideration commissions and other transaction fees, tax considerations, or margin requirements, which are factors that may significantly affect the economic consequences of a given strategy. An investor should review transaction costs, margin requirements and tax considerations with a broker and tax advisor before entering into any options strategy.

Any strategies discussed, including examples using actual securities and price data, are strictly for illustrative and education purposes and are not to be construed as an endorsement, recommendation or solicitation to buy or sell securities.

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U.S. EQUITY OPTIONS MARKET STRUCTURE

12 Exchanges, 1 Clearing House



International Securities Exchange.



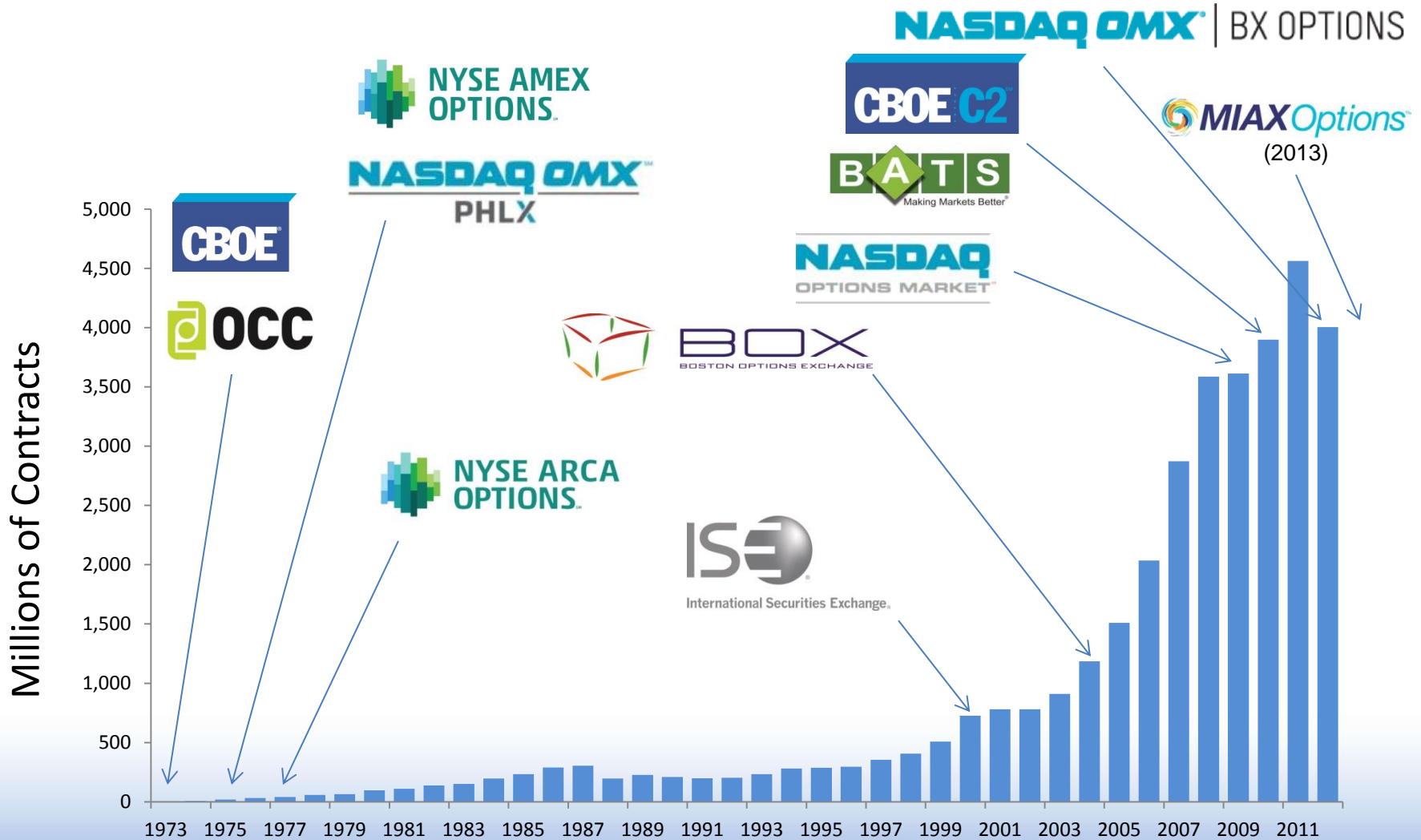
NASDAQ OMX | NOM

NASDAQ OMX | BX OPTIONS

NASDAQ OMX | PHLX



Time Line



Role of the OCC

- “Issuer and guarantor”
- Stands between parties to a trade, stepping in to guarantee performance on a transaction if either clearing member defaults



EUROPEAN HEDGE FUND USAGE OF U.S. EQUITY OPTIONS

Business Evolution

- Regulatory, Perception , and Technology Changes
- Hedge Funds, Asset Managers and Prop Desks...
 - New strategies using ultra low latency
 - Sophisticated portfolio management - hedge / enhance returns
 - Options traded as an asset class
 - Algorithmic trading
- Pension Fund Managers
 - Restrictions to options use is reduced

European investors account for estimated 10% of total U.S. listed options trading in 2010

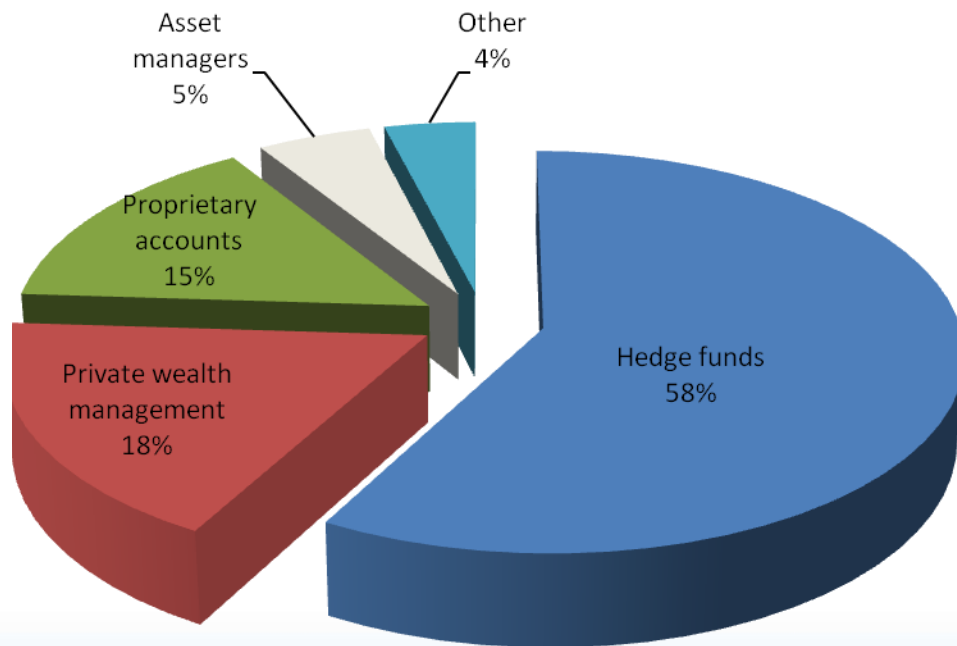
Hedge funds domiciled in Europe represent the largest source of demand for U.S. listed options.

- Small- to medium-sized funds without a U.S. presence.
- Trading around corporate events and volatility.

Private wealth accounts are a growing source of order flow.

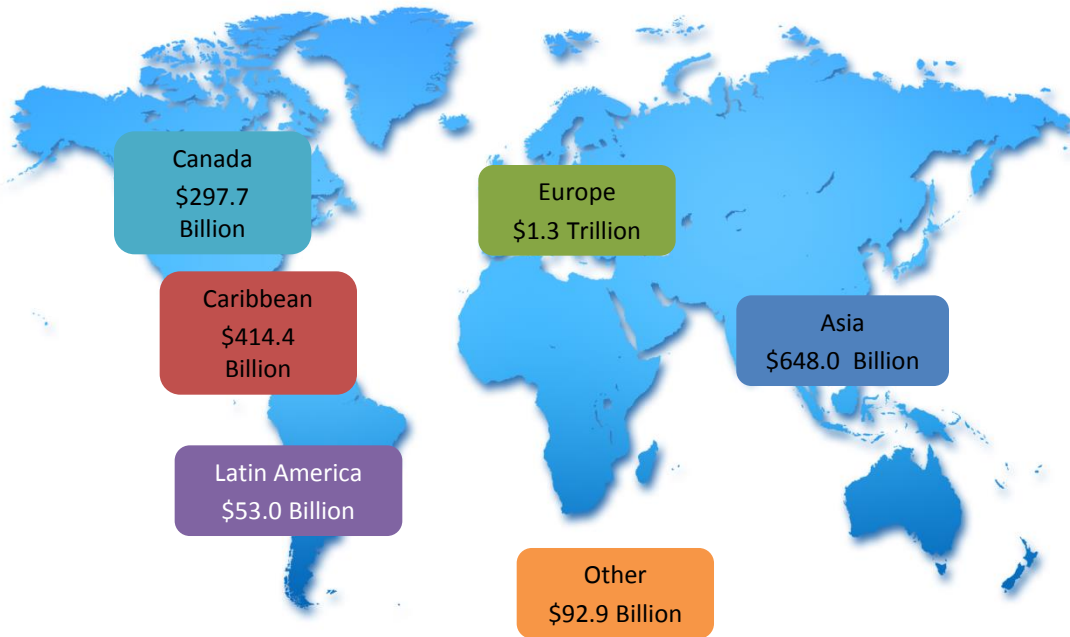
- High levels of U.S. equity exposure.
- Focus options strategies on risk management and premium generation

Proportion of US Listed Options Order Flow Originating from Europe

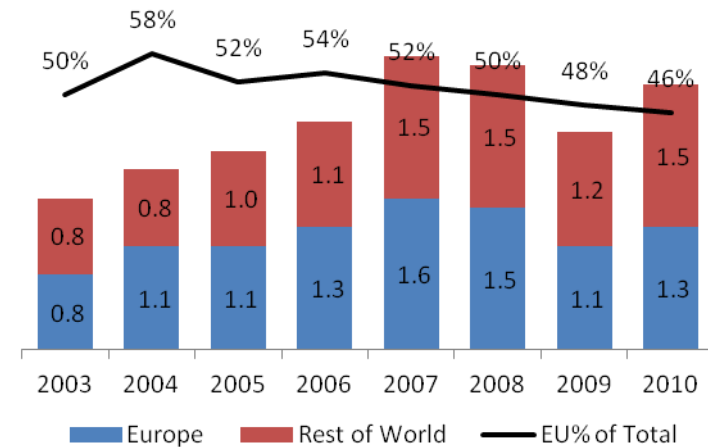


Source: TABB Group

European investors account for 46% of total foreign holdings of U.S. equities

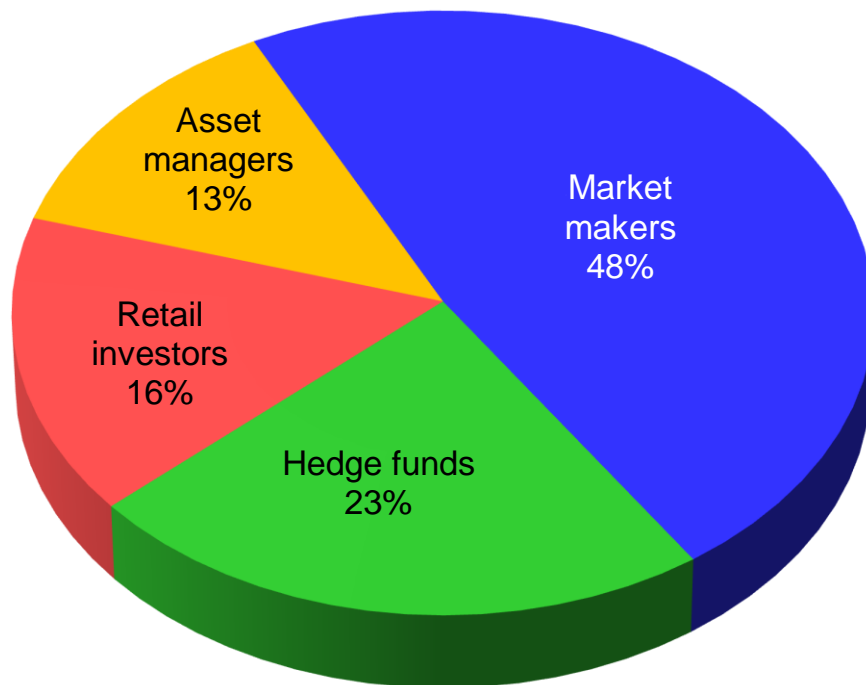


Europe compared with Rest of World (excluding U.S.)



Source: TABB Group

Total Participation in U.S. Options Market by Segment in 2012

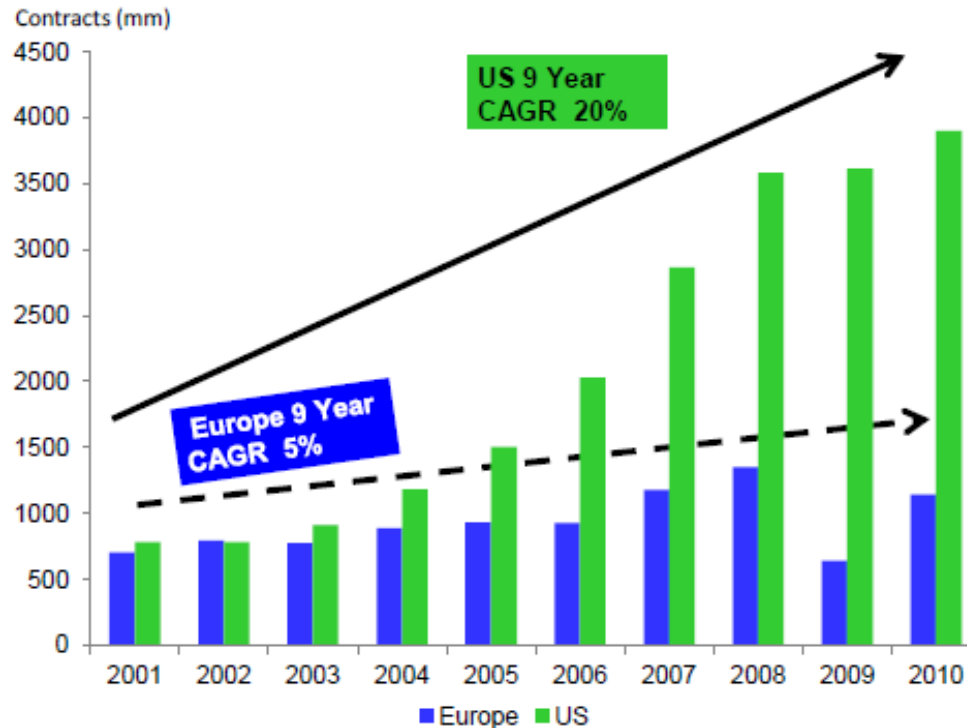


Source: TABB Group

MARKET QUALITY

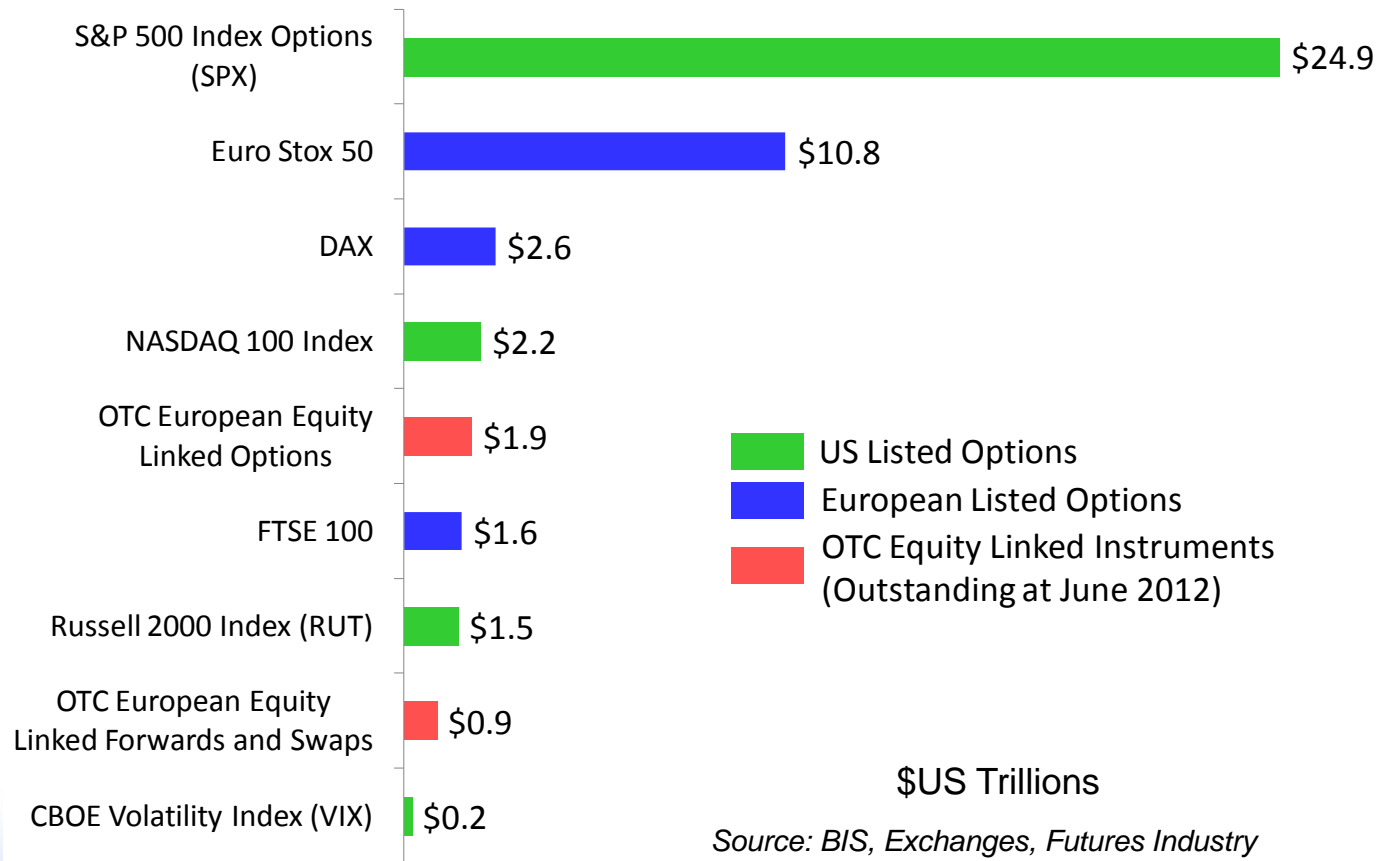
Contrasting Growth Rates U.S. - Europe

Equity Options Volumes (Single Stock, Index, ETFs), 2001 - 2010



Source: TABB Group, WFE, OCC

Value of Trading in Selected US & European Listed Options

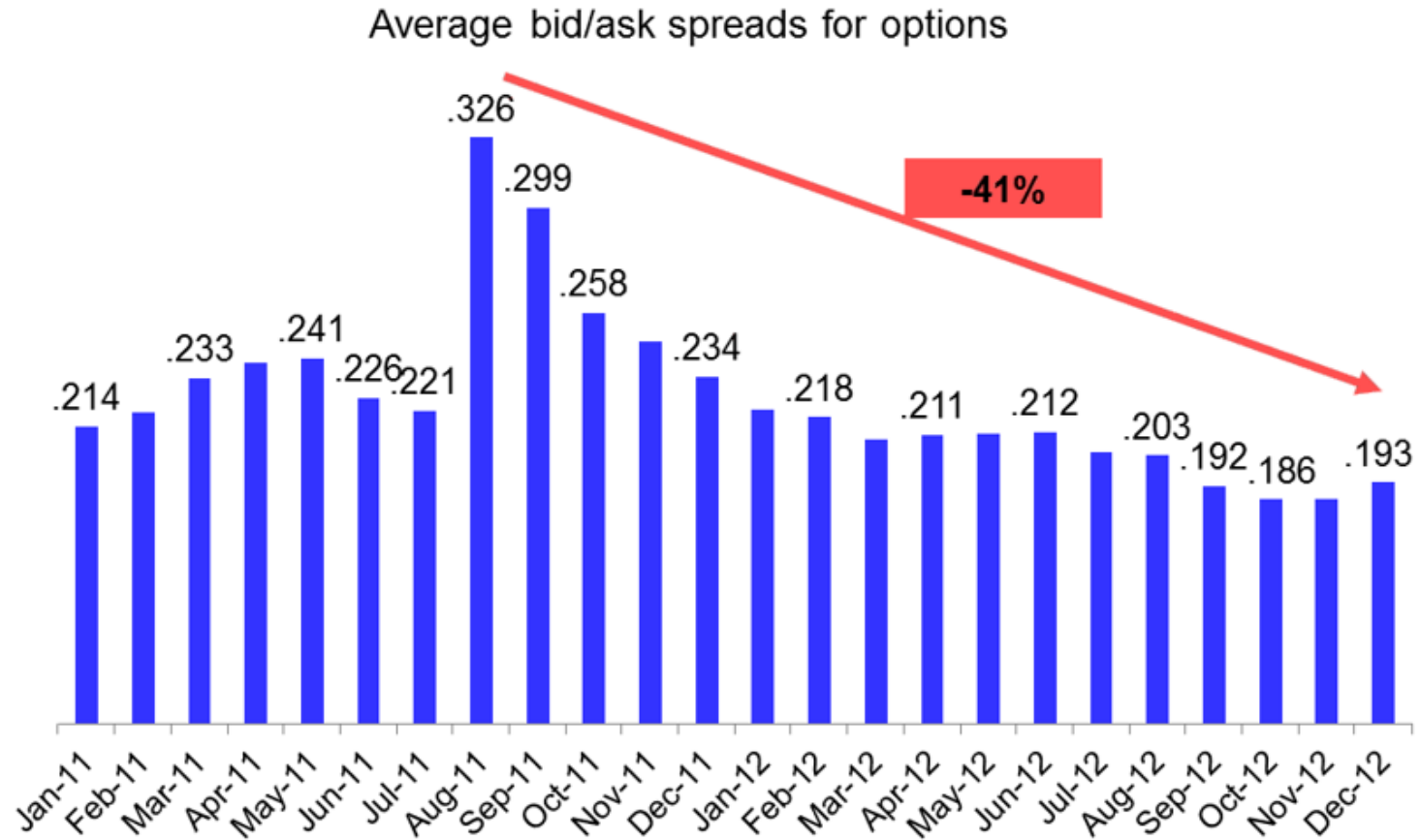


Source: TABB Group

Some 2012 Volume Detail

- 8 of the 10 most actively traded options were ETF or Index options
- Vanilla options: 57% of total equity options trading
- ETF options: 35%
- Index options: 8%

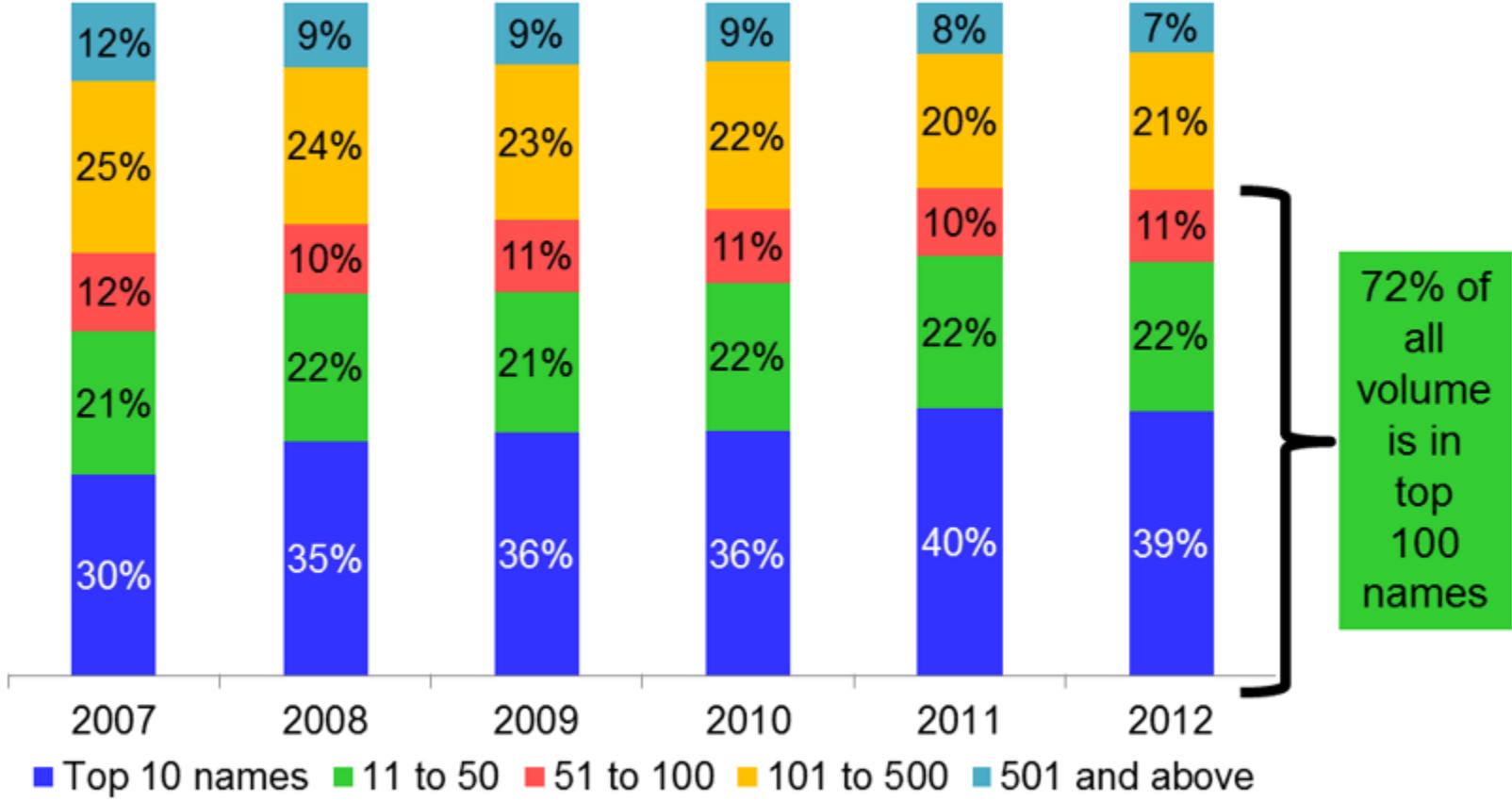
Spreads are Tightening



Source: US Options Market Making 2013: Scale, Scope and Survival, Hanweck Associates

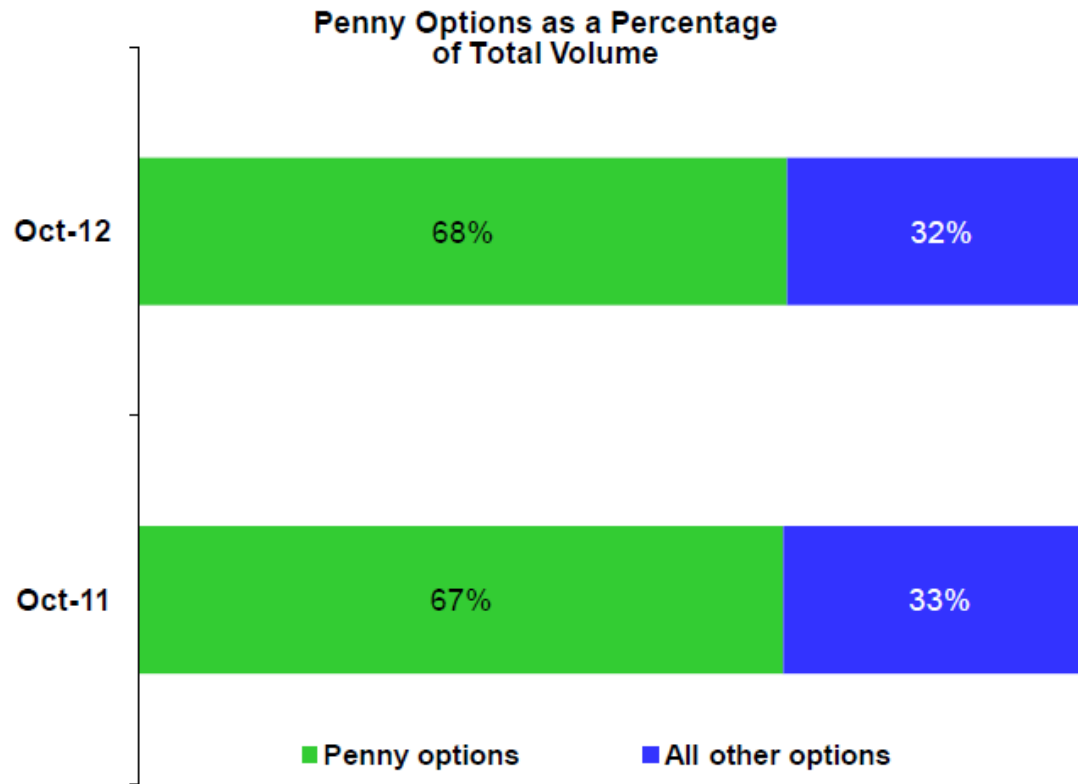
Trading is More Concentrated

Proportion of Volume Traded in Top Symbols



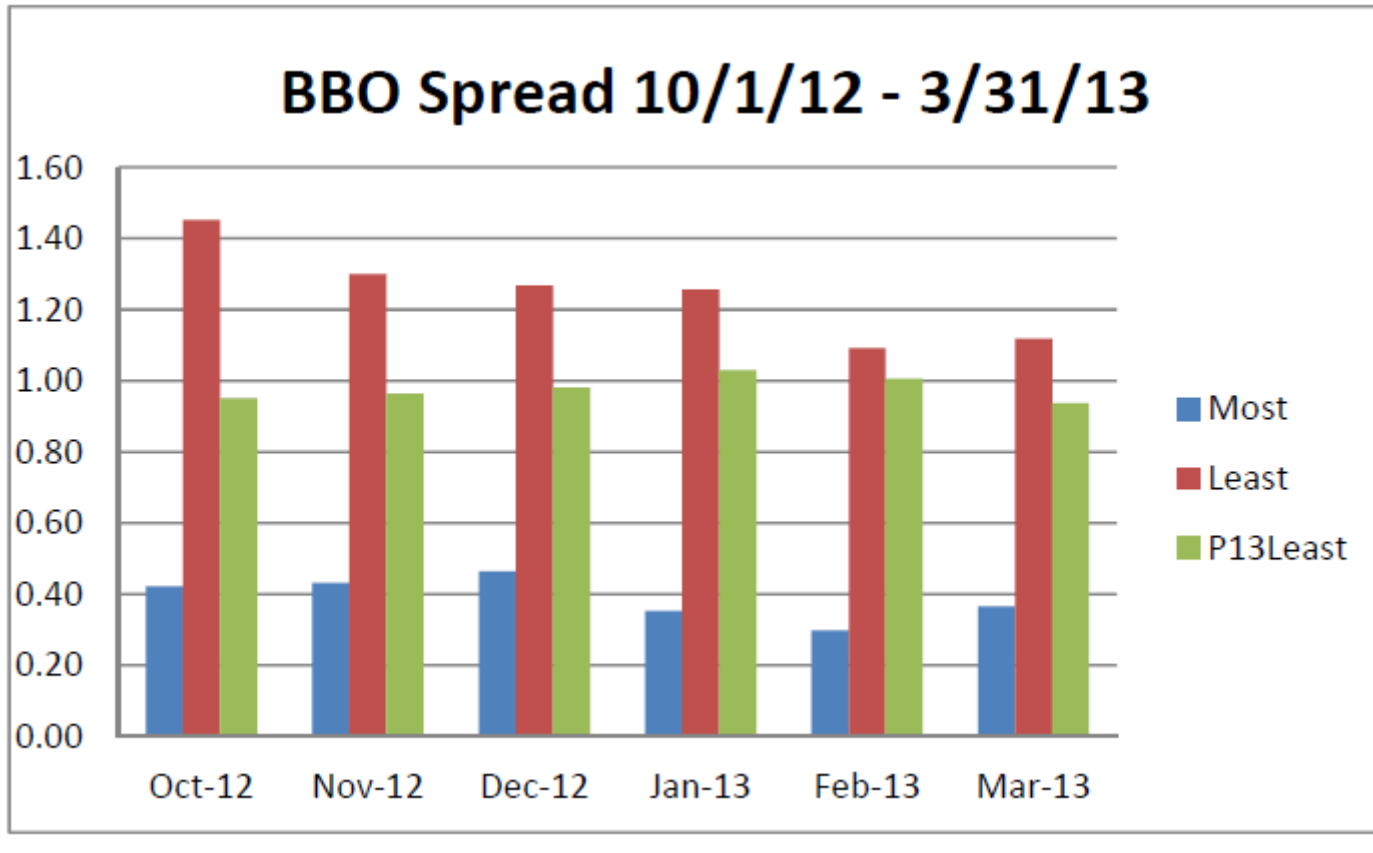
Source: US Options Market Making 2013: Scale, Scope and Survival

Penny Pricing: Percent of Total



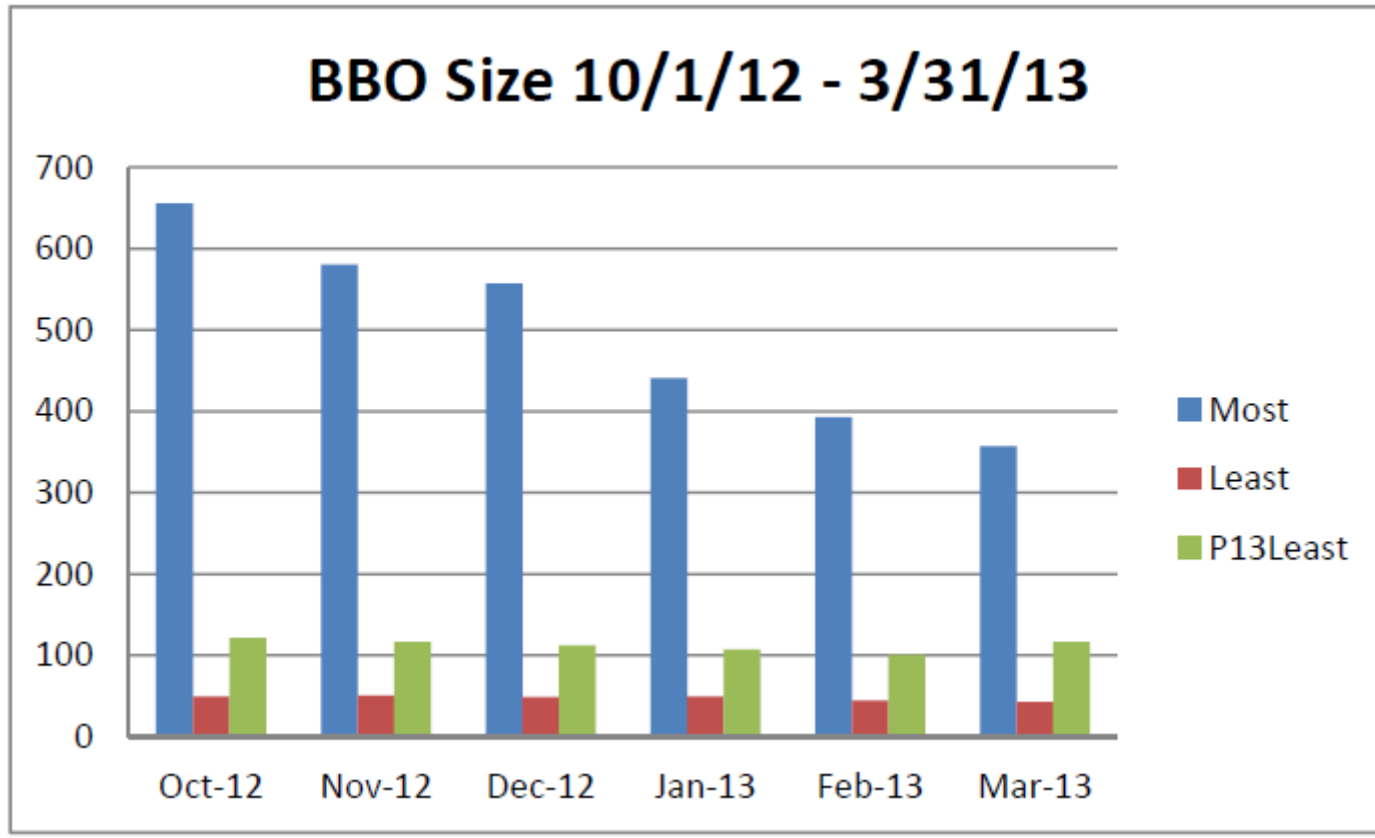
Source: Hanweck Associates/TABB Group

Penny Pricing: Tight Spreads



Source: ISE

Penny Pricing: Liquidity



Source: ISE

Liquidity Providers

Typical market maker and prop shop participants include:

- **Bank of America**
- **BNP Paribas**
- **Citadel**
- **Citigroup**
- **Goldman Sachs**
- **IMC**
- **KCG**
- **Morgan Stanley**
- **Optiver**
- **RBC**
- **Susquehanna**
- **Timber Hill**

Note that no recommendation is made with respect to the use of any firm.

Tools

- **Vanilla options**
- **ETF options**
- **Index options**
- **Weekly options**
- **LEAPS**
- **Super LEAPS**
- **Flex Options**

U.S. OTC Equity Derivatives Clearing

- Initial launch to support OTC equity index options dealer-to-dealer trades, followed by dealer-to-client trades soon after
- The first time central counterparty clearing will be available for OTC equity index options
- OTC trades sent to OCC for clearing will follow OCC's existing clearing, settlement, and risk management processes
- Currently testing with proposed participants and MarkitSERV, trade source and middleware provider
- OCC awaiting U.S. regulatory approval.