

Liquidity, Transaction Costs, and Reintermediation in Electronic Markets

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A Fluid Trading Environment

- * New exchanges and intermediaries
- * Mergers, consortia, alliance formation
- * New products
- * New delivery
- * Global change

Electronic Markets Lead the Way

- * Markets as firms

- * Markets as communications systems

- * Networks and liquidity

- * The link to technology choice

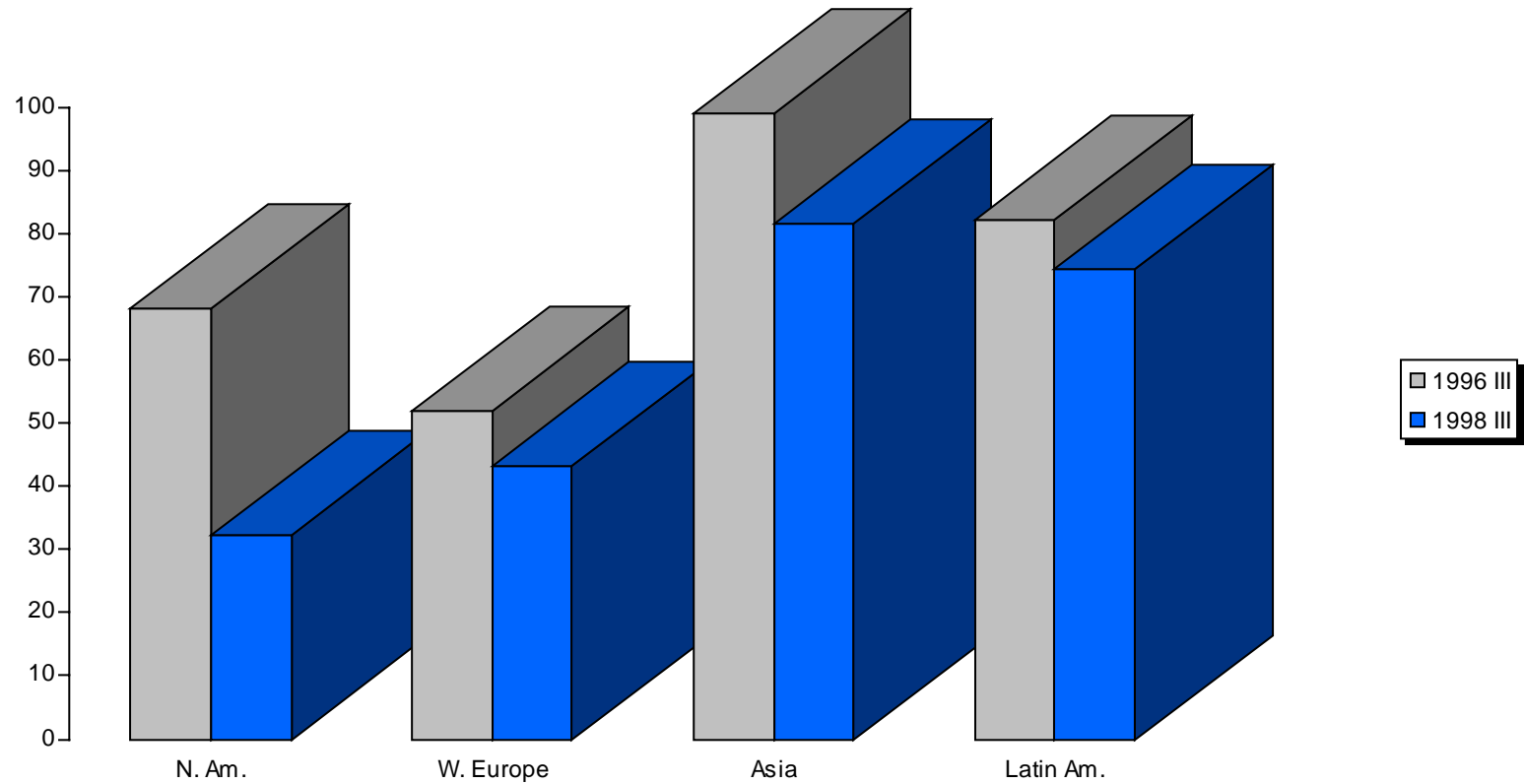
- * **Potential of lower costs to the trader**

 - * and the means of realizing those cost savings*

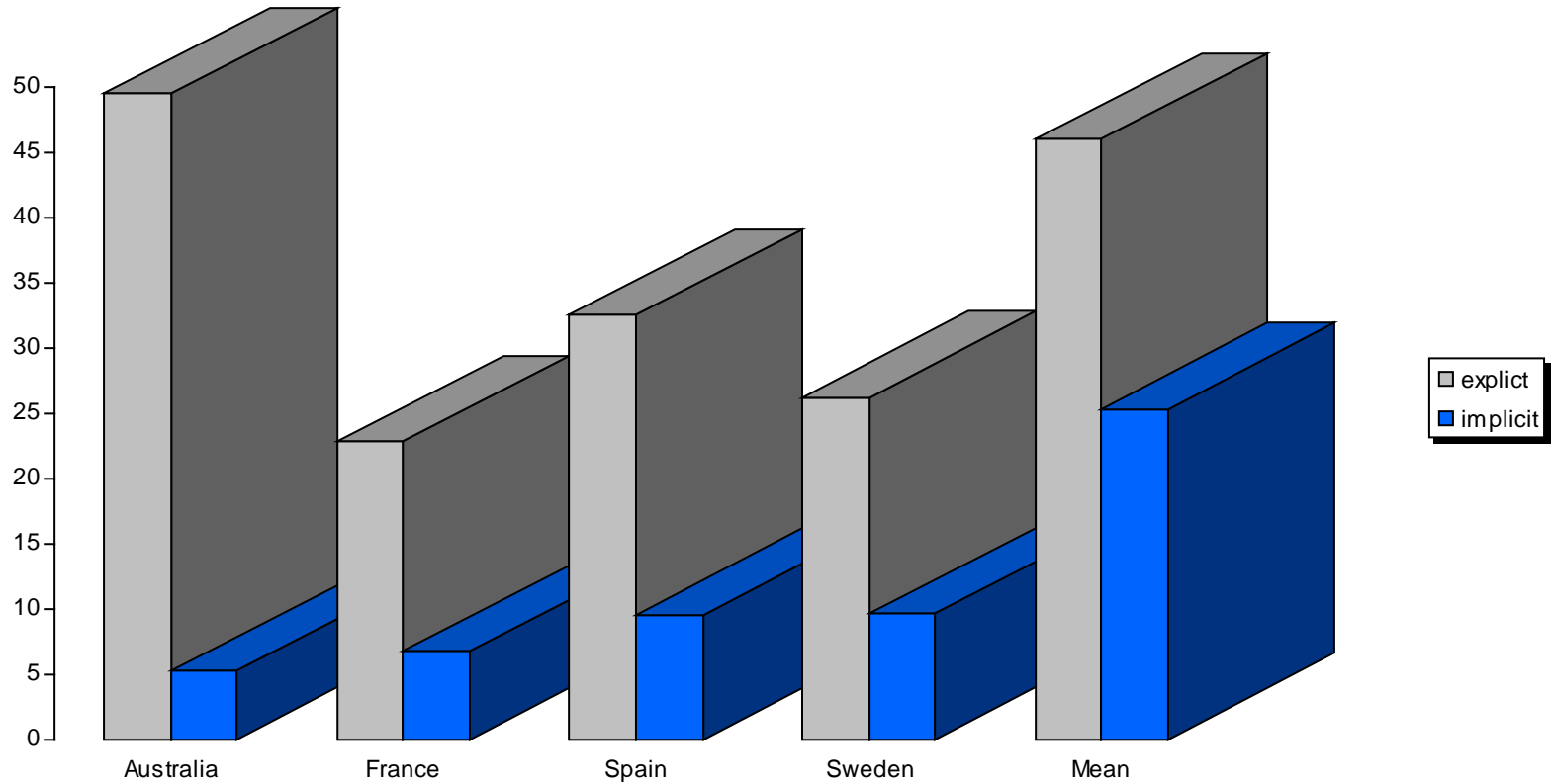
Some Questions

- * Can automated markets reduce costs?
- * What means, peculiar to electronic markets, permit the realization of cost savings?
- * What do answers to these questions imply for the nature of intermediation in an electronic environment?

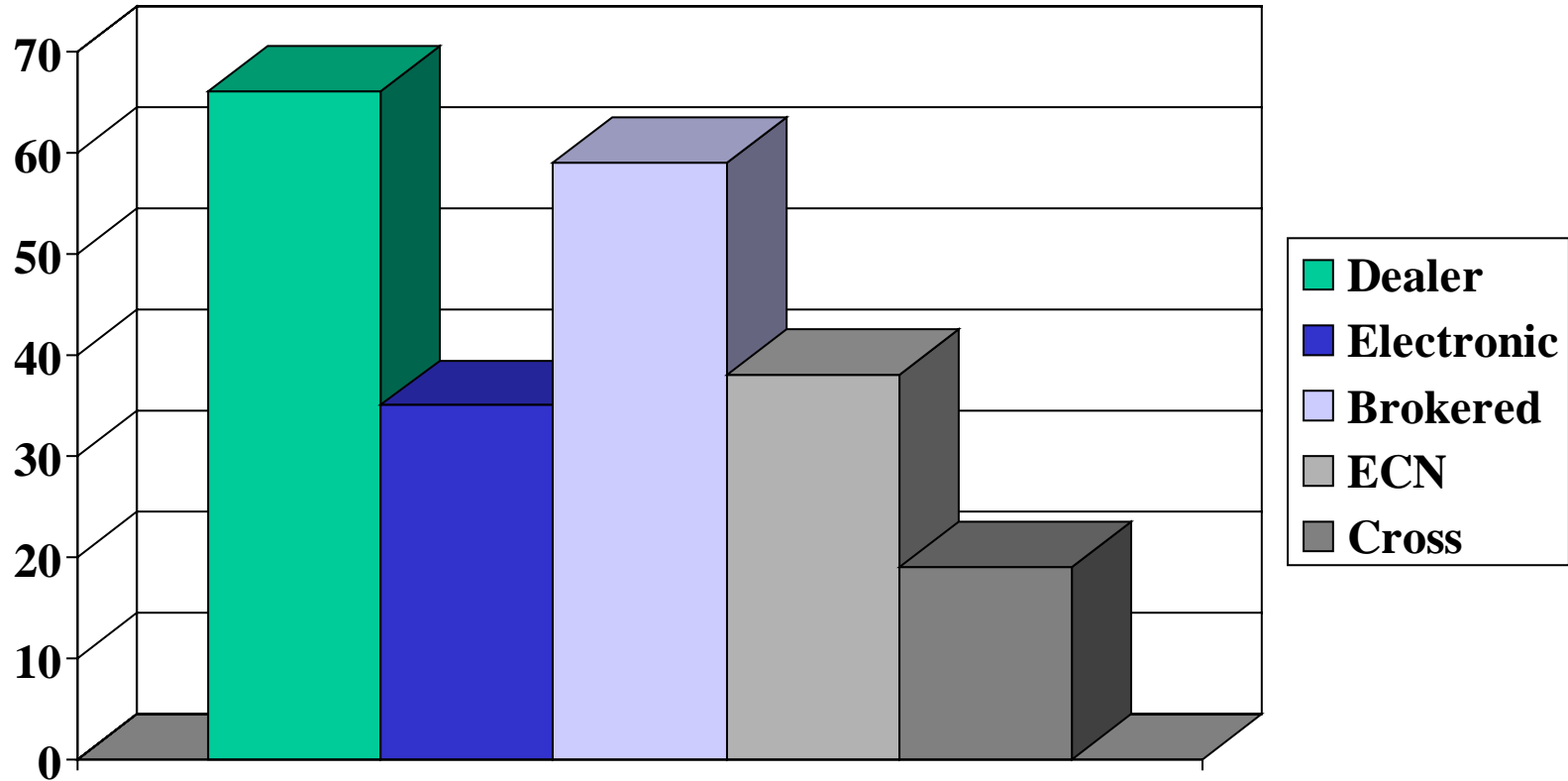
Trading Costs Are Falling...



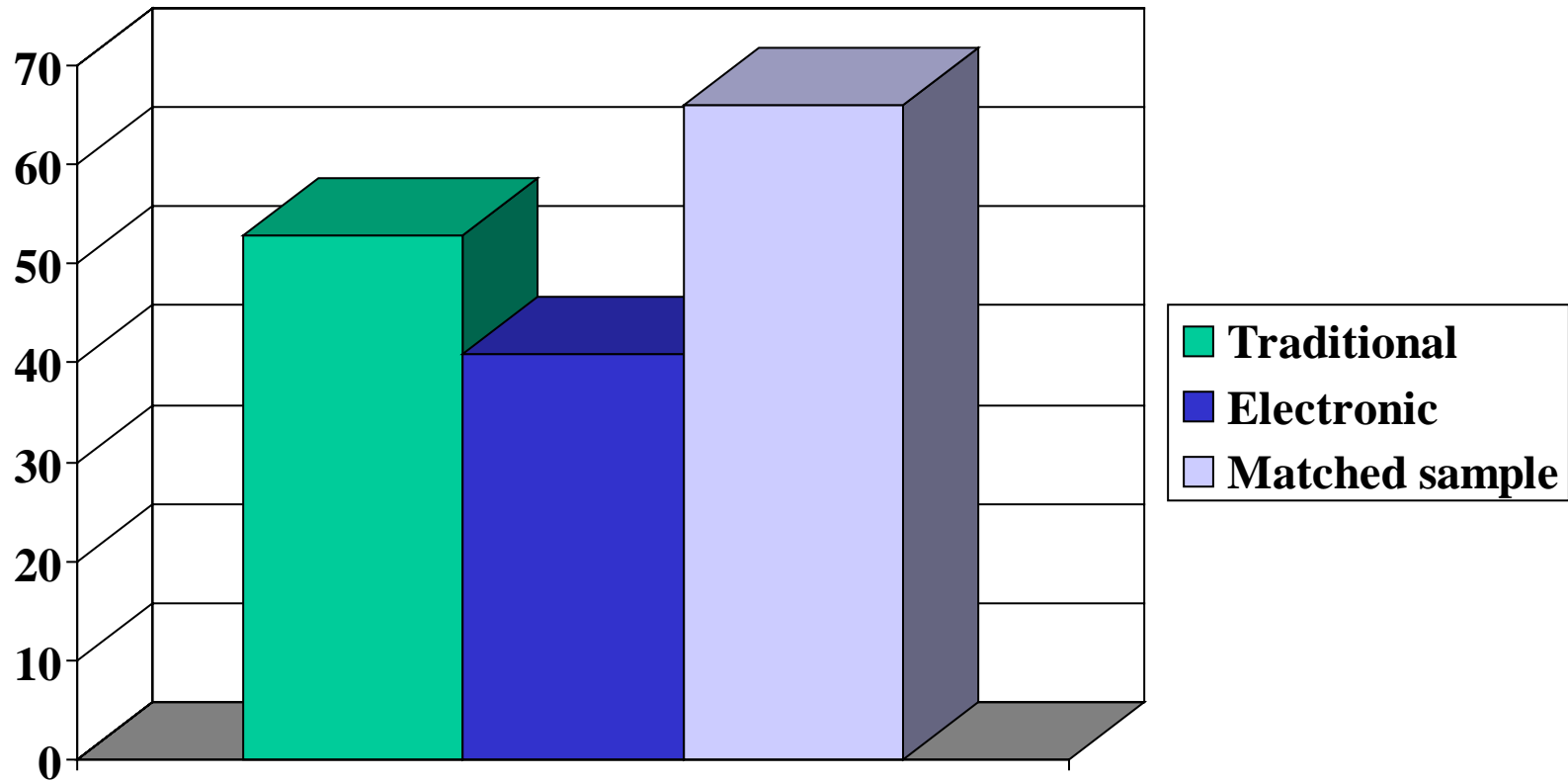
...Driven by Automated Markets



U.S. Execution Costs



Benchmark Execution Costs



OTC Costs by Trade Type

	Below median		Above median	
	trad'l	electr'c	trad'l	electr'c
* Shares/trade	0.543	0.452	0.967	0.825
* Market cap	0.285	0.005	-0.137	0.254
* Volatility	-0.102	0.351	0.330	0.082
* Benchmark cost	0.060	0.253	0.165	0.158

Electronic Markets and Costs

- * Lower explicit costs

 - * Sharply reduced development costs

 - * Smaller operating costs

- * Lower implicit costs

 - * Automation by itself cannot reduce implicit costs of trading

- * The practical issue

 - * Identify the *means* of reducing price impacts

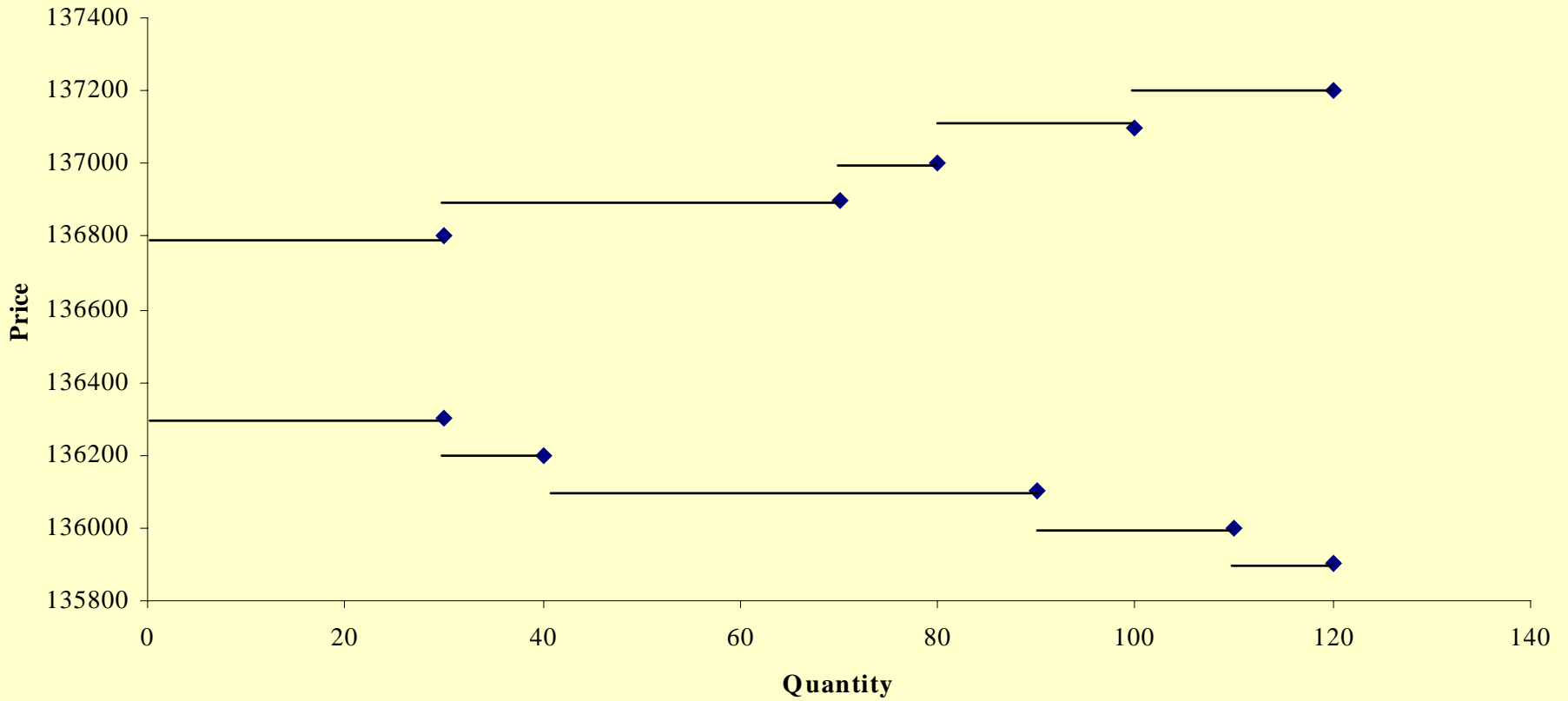
E-Books and Cost Savings

- * Liquidity varies over the day
- * Monitoring possibilities
 - * Larger sizes in an environment characterized by more trades
 - * Larger sizes with smaller spreads

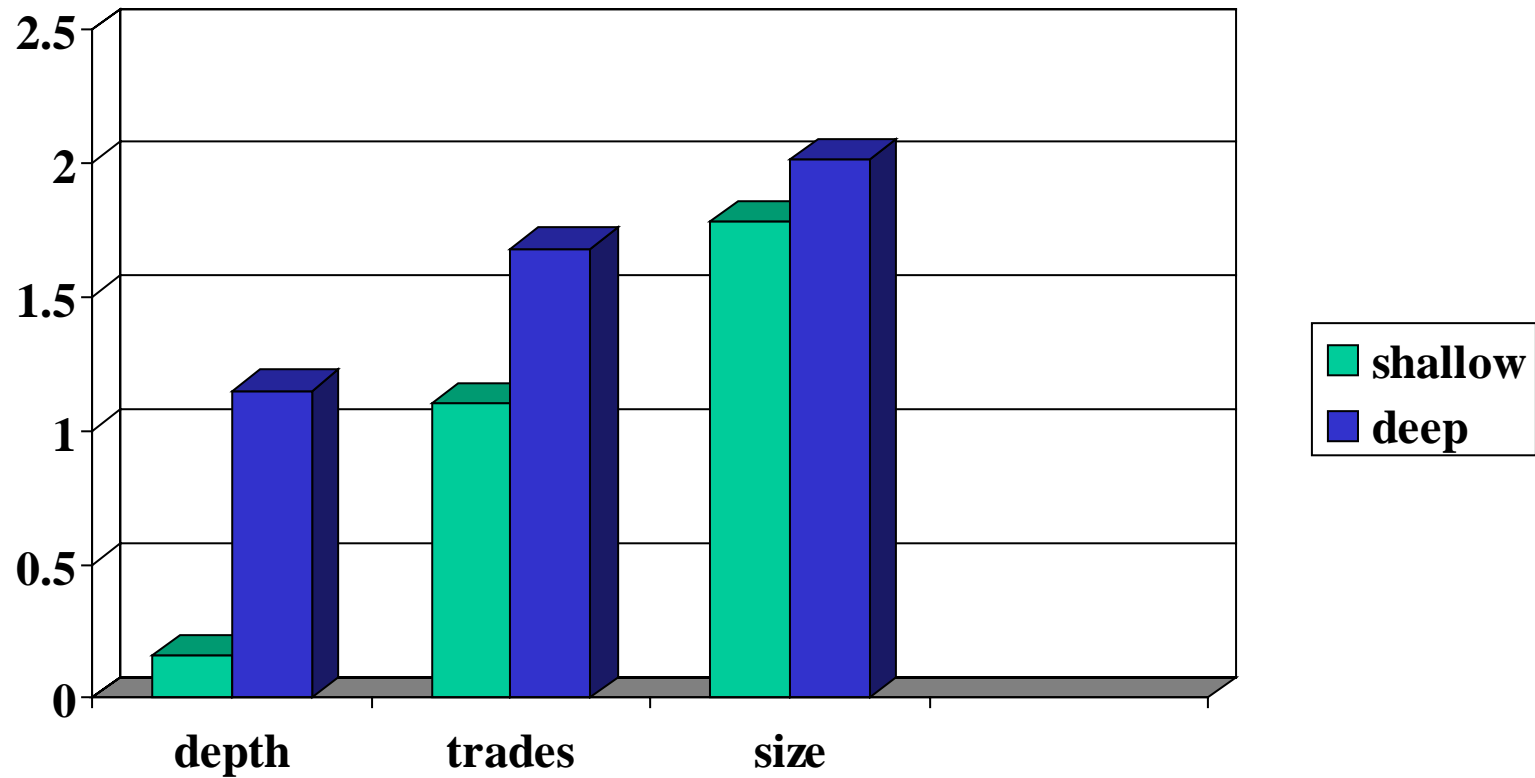
Measures of Market Depth

- * Total contracts available on each side
- * Number of contracts at or below a specific number of ticks away from quote midpoint
- * Spread as function of number of contracts

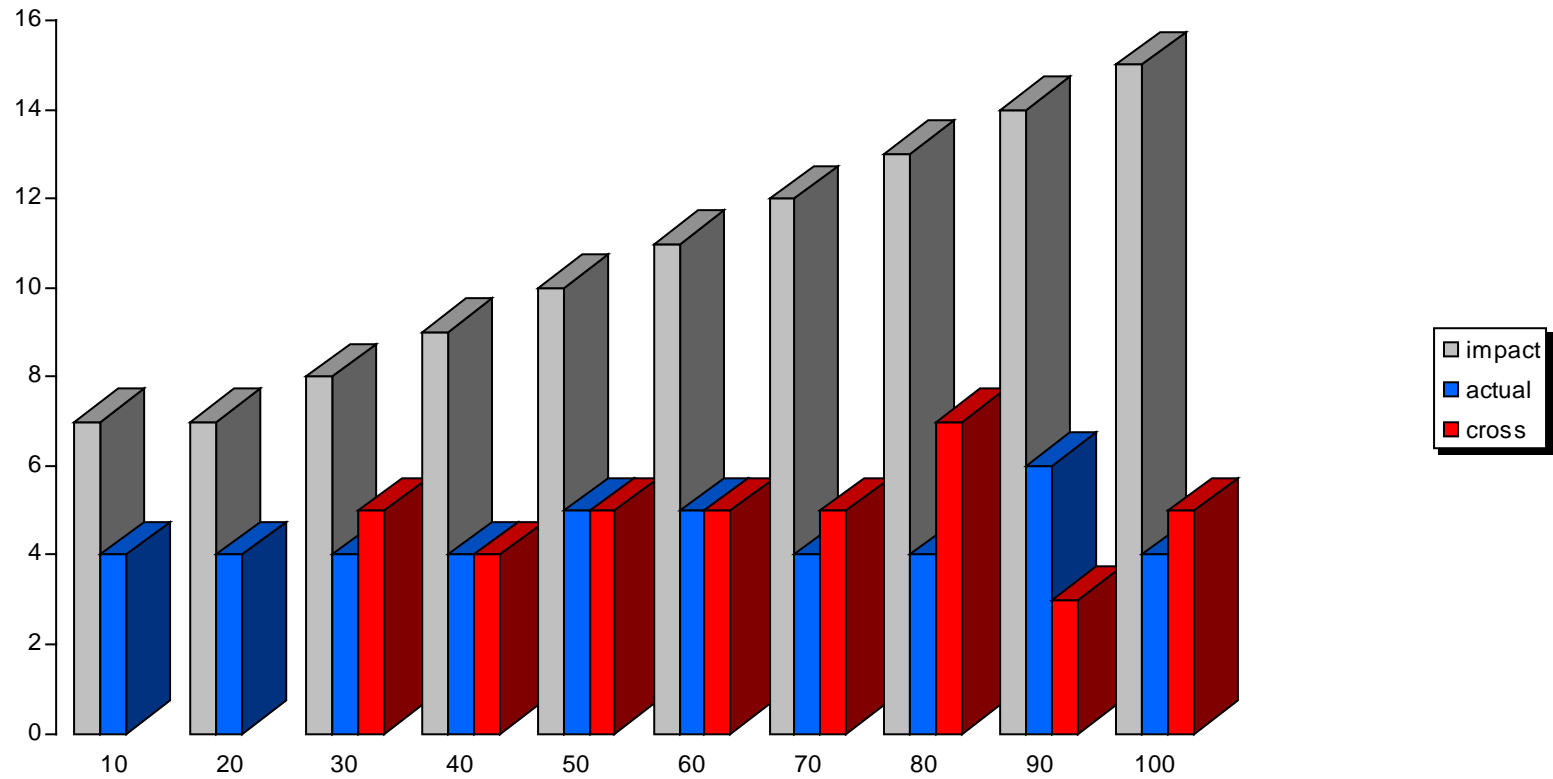
LOB Snapshot



Depth at Six Ticks



Price Impact



The Next Level In Cost Savings

* Disintermediation

- * Access restrictions and reductions in costs

- * Concerns over liquidity provision and search

* Reintermediation

- * Process by which a disintermediated entity is reestablished in the new environment

- * Exchange services or reintermediation?

Reintermediation Examples

- * Smart connectivity for electronic execution
 - * Change management
 - * Liquidity management services
- * Tradescape's SORT algorithm
 - * Analysis based on speed, cost, quotes, activity
 - * Determine point of execution
 - * ECP electronic communications portal

Reintermediation Competition

- * The brokerage and exchange divide
 - * Small step to add execution facilities to electronic dealing and search functionality
- * Need not build execution independently
 - * ConSors and Berlin Stock Exchange
 - * Comdirect, Commerzbank, and retail exchange
 - * Schwab and MarketXT

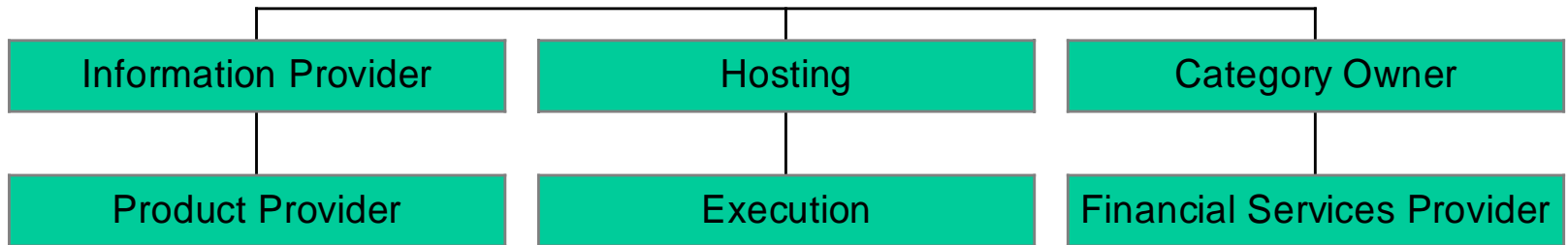
Exchanges As Utilities?

- * The unbundling hypothesis
- * Exchanges become a “back office” service
 - * Automated execution
 - * Quote server
 - * Hosting function
- * Utilities are low margin
- * Utilities are subject to consolidation

Rebundling and the Internet

- * Potentially infinite product line
- * Rich, diverse and specific information
- * Interactive tools to suggest products/trades
- * Specialization possible at low cost
- * Less geographically constrained
- * Tools and lower interaction costs

Rebundling Possibilities



Web-Driven Design Objectives

- * Open and modular architecture
- * Addition of new order types
- * Linked order destinations
- * Interfaces for value-added data items
- * Interfaces for third-party vendors/support
- * **Trading decision support capabilities**

Reintermediation Examples

- * ITG POSIT 4 and “smart” execution
- * Tradescape Institutional and eSpeed
- * Liquidnet and TOMS integration
- * Sydney Futures Exchange and...
 - * Modular architecture international access
 - * Internet interface for proprietary front ends
 - * Expanded order types enabled
 - * Trader access to customized market depth

Decision and Processing Support

- * Trade lists sorted and viewed by liquidity and execution difficulty measures
- * Market impact model for costs over periods
- * Trading strategies suggested based on input with respect to degree of urgency
- * Multiple market direct execution access

Starting to Change Everything

❖ Characteristics

- ❖ electronic presence
- ❖ accessibility
- ❖ enhanced information
- ❖ easy interaction
- ❖ easier search
- ❖ value of “sites”

❖ Implications

- ❖ brand and scale players
- ❖ global competition
- ❖ demand for tools
- ❖ customization
- ❖ lower margins
- ❖ liquidity advantages

Economic Forces and Electronic Markets

* *Force*

- * Dramatically lower interaction costs
- * Economies of scale and scope
- * Network effects

* *Impact*

- * Unbundling
- * Consolidation and rebundling
- * Acceleration of transformation