

From Block Lords to Blockchain: A Brief History of Securities Dealers' Organizational Strategies

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Aims of this paper

- We are on the vestibule of enormous changes in how information is created, transmitted and processed.
- For the vast majority of transactions by volume, money is expressed as information.
- The only really informed group controlling the shape of market structure is the financial industry.
- What guides financial industry choice?
- How will this affect market quality, stability and fairness?

Approach of this Paper

1. **Historical analysis**
 - a. The period of direct trading pre-exchange
 - b. The age of exchanges
 - c. The threshold of distributed ledger networks

2. **What did exchanges mean for broker-dealers?**
 - a. Concrete aims of founding the clubs
 - b. Advantages of owning the clubs
 - c. Disadvantages of clubs becoming public

3. **What does dis-integrating exchanges mean for us?**
 - a. Loss of focal point for regulation and oversight
 - b. Loss of equal and “democratic” access to the market

4. **Takeaways for regulation**
 - a. Historical perspective on current moment
 - b. Insight into how securities dealers structure market
 - c. Clear choices on what the passing of exchanges means

Theoretical perspective

- This study embraces the position of new institutional economics that institutions are usually created and structured for the benefit of their makers – not for general efficiency. This position has remained quite constant:
- Douglas North (1990): “Institutions are not necessarily or even usually created to be socially efficient; rather they, or at least the formal rules, are **created to serve the interests of those with the bargaining power to devise new rules.**”
- Mahoney & Thelen (2010): We should view “institutions above all else as **distributional instruments laden with power** implications.”

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INFORMAL TO FORMAL TRADING INSTITUTIONS

Merchants trading debt and shares without a centre.

- **Direct networks:** Braudel (1992) finds that during the tenth century AD, trade in debt instruments like “bills of exchange, promissory notes, letters of credit” existed among “the merchants of Islam.”
- **Market squares:** Braudel also observes that during the 15th century shares in German mines were periodically traded in goods markets, or ‘fairs’ in Europe. De Roover (1942) explains that as the use of fairs decreased, the financial firm came into being.
- **Who would make the market?** We do not have wide-ranging historical information, but it can be expected that the largest trader will have had the most influence the market. Such a trader would act as market centre.
- **Who defined the rules?** Again, we do not have good historical information, but absent information to the contrary, it is reasonable to assume that the best established (likely largest) broker-dealers heavily influenced the rules of trade.

Networked finance existed without formal institutions (decentralized, private ordering)

- In 14th Century Bruges, “most payments among businessmen-were made by ‘assignment in bank’ it was not only possible to transfer credit when the debtor and the creditor were both clients of the same money-changer It is false to contend that a booktransfer system could not **operate effectively without a centralized clearing system**. On the contrary, such a system did operate effectively in medieval Bruges because **all the money-changers were in account with one another.**” De Roover (1942: 62-63)

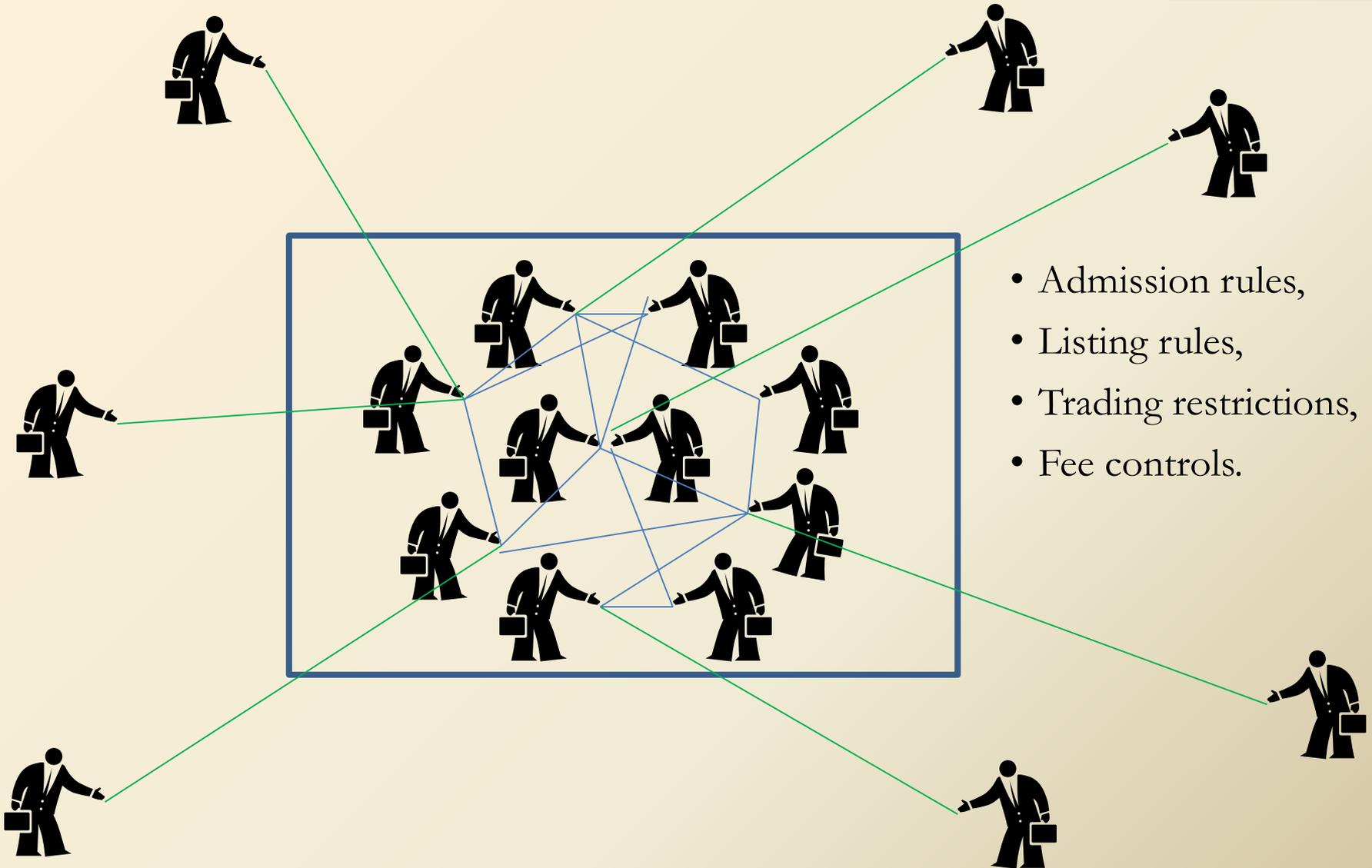
From Curb to Club (centralized, private ordering)

We the Subscribers, Brokers for the Purchase and Sale of Public Stock, do hereby solemnly promise and pledge ourselves to each other, that we will not buy or sell from this day for any person whatsoever, any kind of Public Stock, at a less rate than one quarter per cent Commission on the Specie value of and that we will give a preference to each other in our Negotiations. In Testimony whereof we have set our hands this 17th day of May at New York. 1792.

The formation of the clubhouses

- **Boxing in transactions:** Historians agree that what distinguished securities markets from open networks was control – monopoly, control of information, concentration of trading for speculative instruments.
- **Netherlands:** Amsterdam market famously formed in 1602 to facilitate trading in VOC shares. Petram (2010)
- **New York:** The Buttonwood Agreement of 1792 (forming the New York Stock Exchange) creates a cartel to fight a group of auctioneers on the other side of the block. Welles (1972).
- **London:** English stock-jobbers without formal organization traded instruments of various types during the 17th and 18th centuries in London coffee houses, eventually forming the London Stock Exchange in 1801. Michie (2001) Here, the effects of the Bubble Act created market differences from New York.

Illustration: merchants move toward a clubhouse

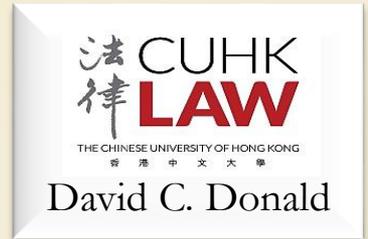


- Admission rules,
- Listing rules,
- Trading restrictions,
- Fee controls.

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FUNCTIONS OF EXCHANGES

Securities exchanges created safe, cheap and fair trading environments for their members



1. **Reduced transaction costs:** orderly procedure agreed on by all members made trading faster and less prone to errors.
2. **Reduced counterparty risk:** exchange members who presented insolvency risk could be excluded; guarantee and indemnification systems (particularly for futures markets) could be established.
3. **Increased pricing information:** access to the order book or the current bid-ask spreads helped traders stay ahead of the market.
4. **Reduced alpha risk:** screening of the companies whose securities are traded helped reduce investment risk and the information improved the quality of investment decisions.

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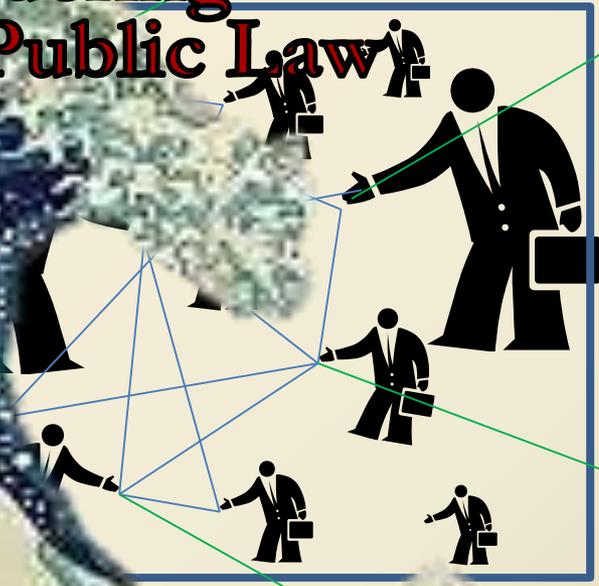
THE PUBLIC PERIOD

Following crisis, the clubhouse falls under public control and oversight, locking large and small members together



Private Ordering becomes Public Law

- Admission rules,
- Listing rules,
- Trading restrictions,
- Fee controls.



Research to be done of the impact of the transition from private to public ordering

- Catalogue laws governing operations of securities exchanges in UK, US and another jurisdiction (perhaps HK).
- Catalogue information on how those exchanges were privately governed just before the enactment of those laws.
- Of the changes made, isolate those which may have been disadvantageous to the dominant broker-dealers.
- Of those areas, isolate which – if any – are alleviated by the return to a dis-integrated network following National Market System (NMS) and Market in Financial Instruments Directive (MiFID).

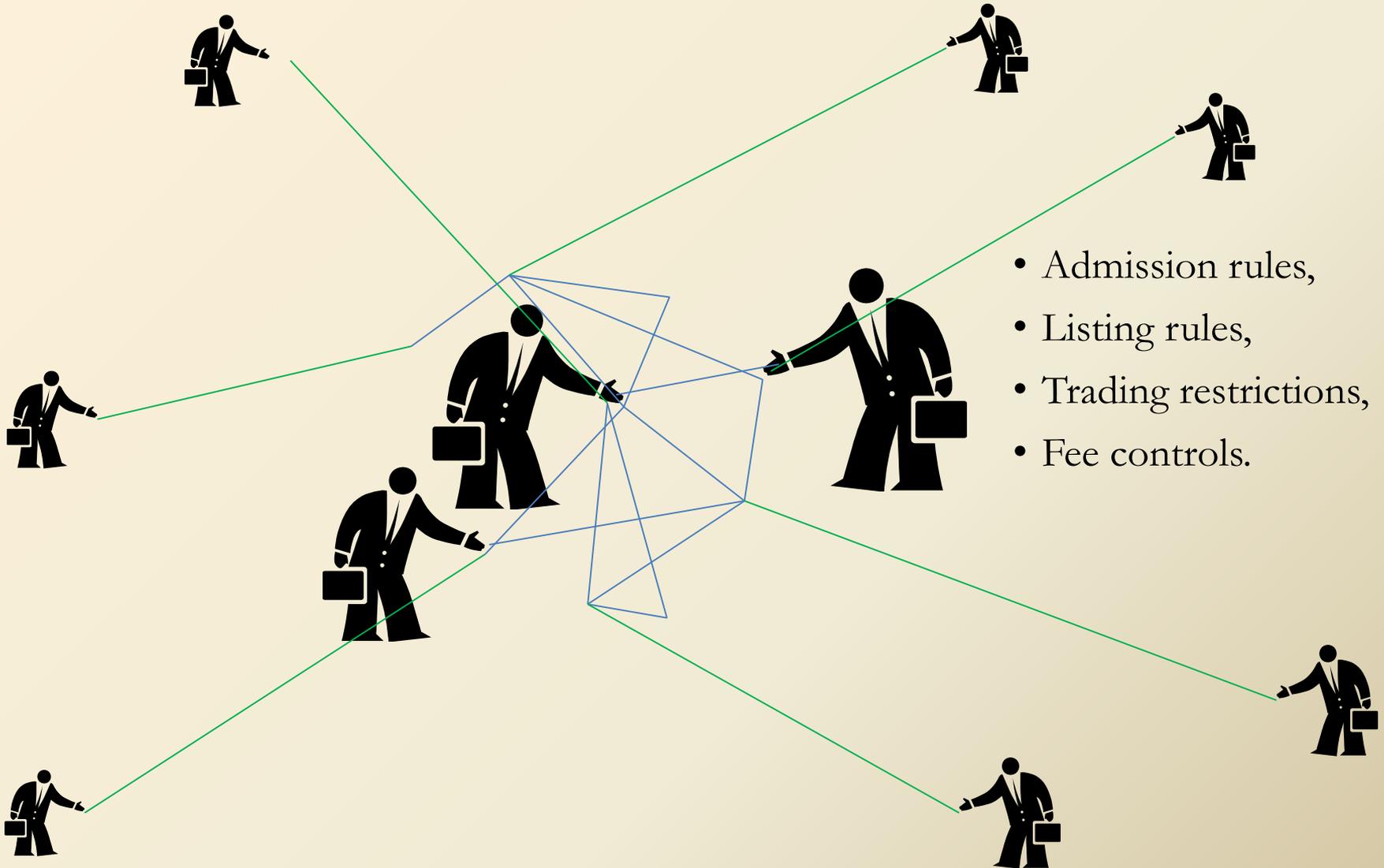
Direct networking returns because of technology, which encourages lobbying

- **Legal impetus:** In 1975, dis-integration was mandated by law essentially as an anti-monopoly measure, but was put on hold for 30 years by broker-dealer lobbying.
- **Advent of virtual space:** In the 1990s, technology began to allow the functions of a securities exchange to be performed virtually in an expensive but compact package of IT.
- **NMS and MiFID:** The US and EU eliminated the securities exchange as a centre of concentrated trading.
- **Dis-integration:** Major broker-dealers began to operate alternative trading venues, so that exchange trade of listed securities was more than halved (12/2 exchanges, 37 ats, 250 internalizers).

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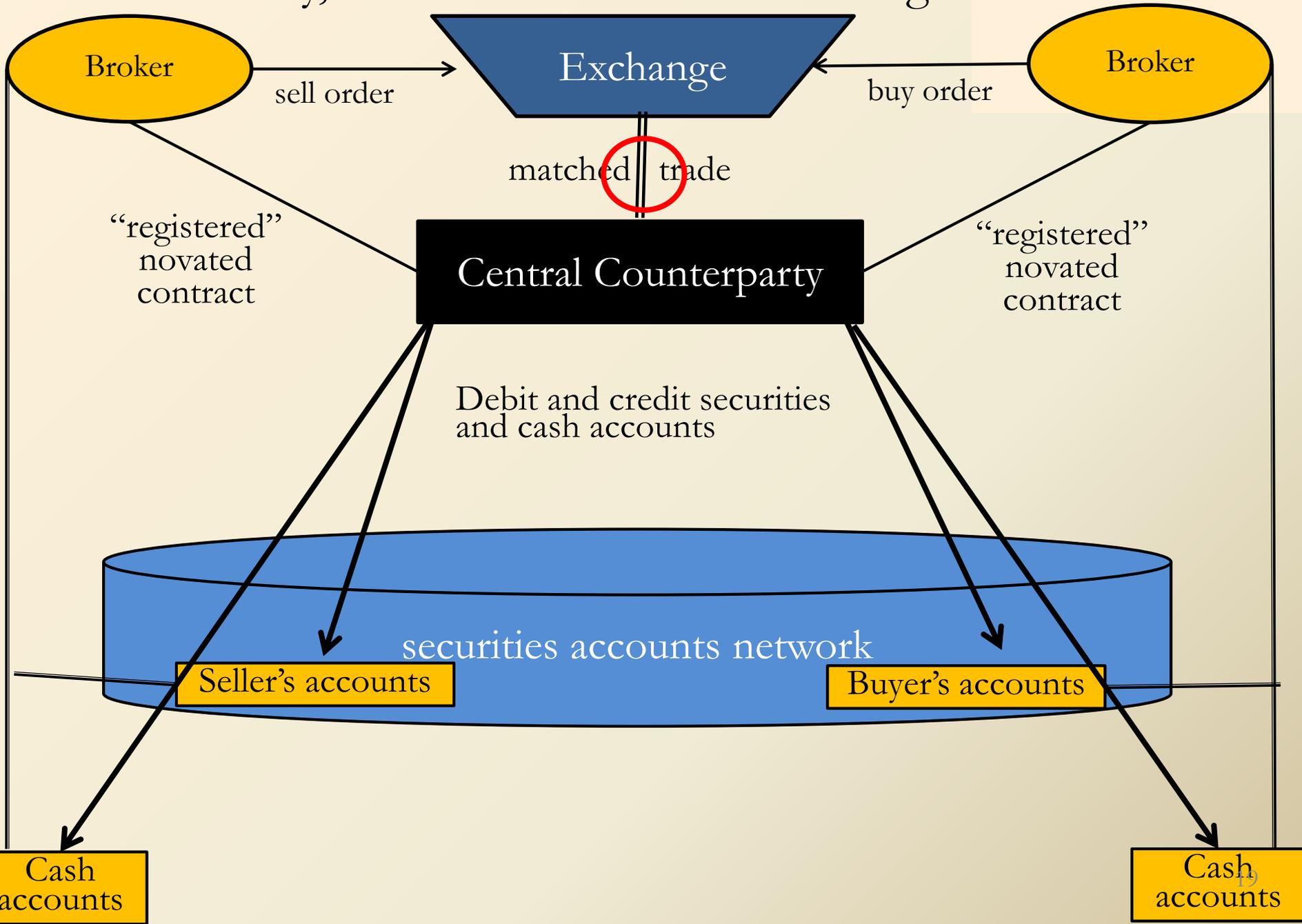
DIS-INTEGRATING EXCHANGES

Deregulating and dis-integrating the clubhouse: from public, back to private ordering

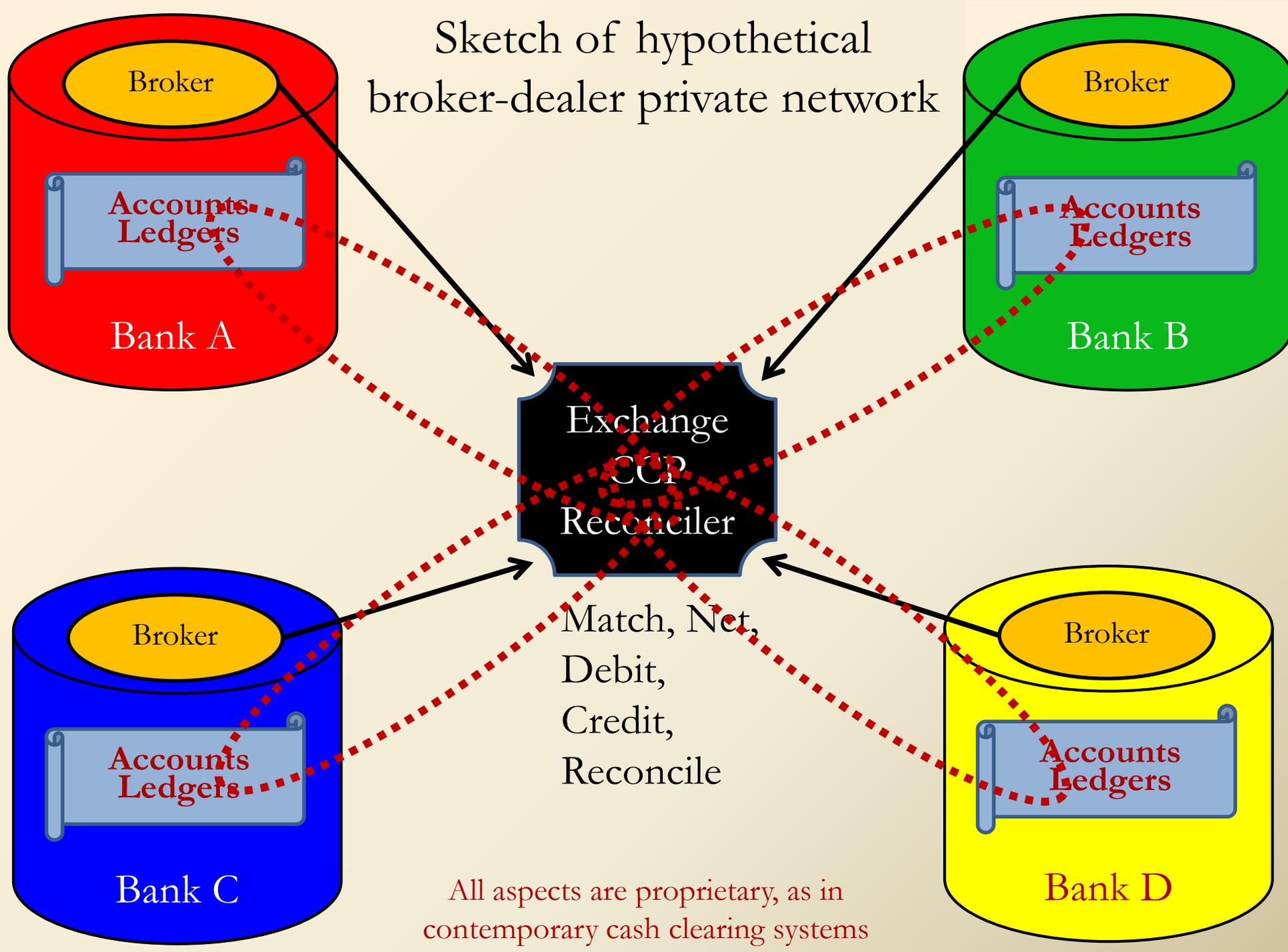


- Admission rules,
- Listing rules,
- Trading restrictions,
- Fee controls.

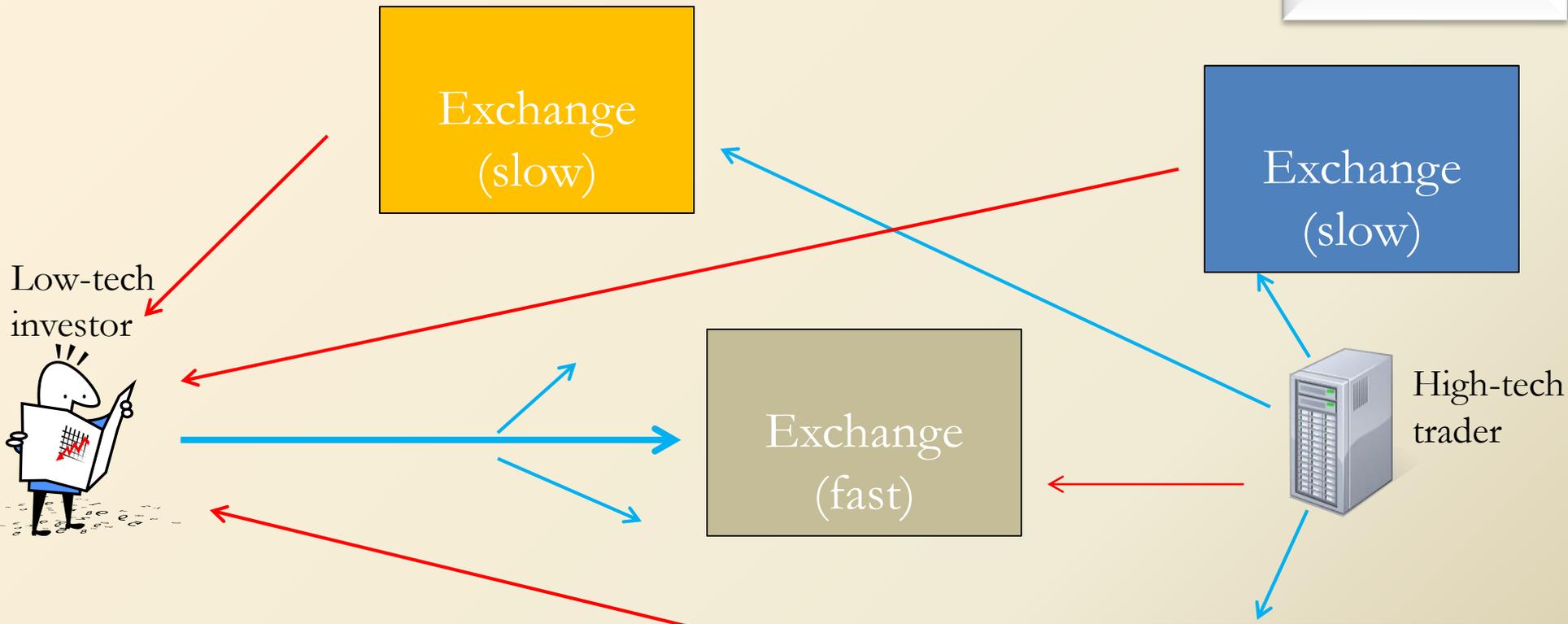
The ordinary, centralized securities exchange environment



Sketch of hypothetical
broker-dealer private network



Latency arbitrage in early HFT shows that fragmentation can be exploited

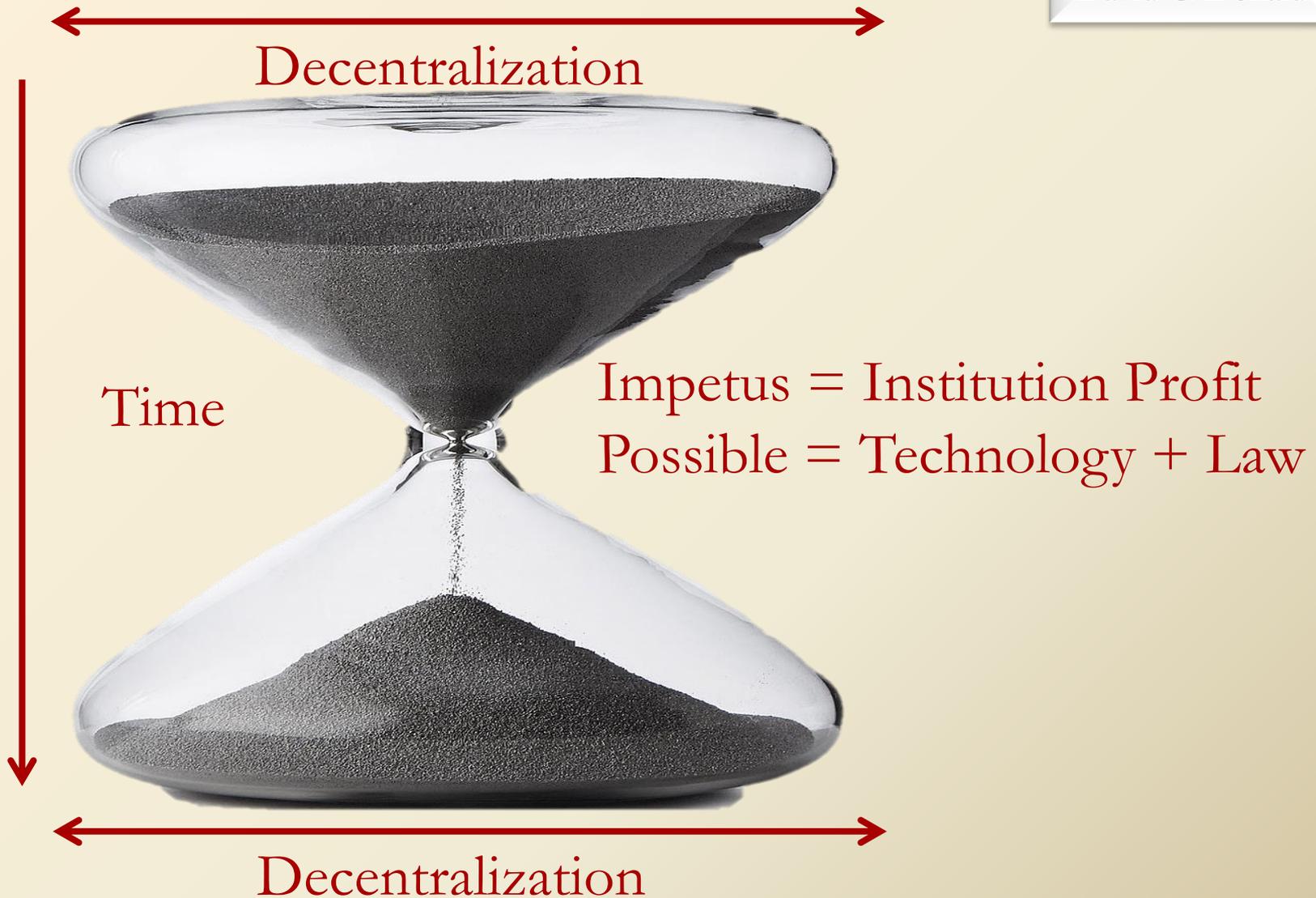


- Sell 100 @ 50
- Buy 50,000 @ market
- Execution - 100 bought @ 50
- Buy 30,000, 10,000 and 9,900 @ 50
- Sell 30,000, 10,000 and 9,900 @ 51.
- Profit 49,900 in less than 2 seconds.
- In a volatile market, the 'resale' price could be 53

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APPLICATION OF RESULTS

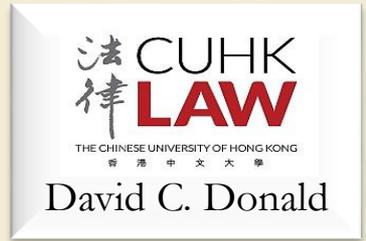
History of trading shows hourglass pattern



Highlights of this paper for regulators

- **Competition:** The securities market as enabled by public exchanges is returning to one dominated by large broker-dealers (private infrastructure).
- **Regulatory slippage:** Securities regulation designed around the securities exchanges needs fundamental restructuring.
- **Transparency:** The private network reconciled among large banks may not be as transparent as exchange trading: nearly everything will depend on trusting the largest broker-dealers.
- **Information for assessment:** Regulators should realize that financial institutions are not altruistic (or that the invisible hand has limits), and that their selection of market structure options are usually calculated to promote their own business.

Topical overview of securities dealers' organizational strategies



1. **Direct trading**

- a. Market privately ordered around natural center of liquidity
- b. Private ordering without state control
- c. Little oversight (compare OTC derivatives pre-2009)

2. **Clubhouses to Securities Exchanges**

- a. Public will brings legal initiatives to coat private ordering
- b. Small exchange participants receive public protection
- c. Regulators have cheap point of oversight

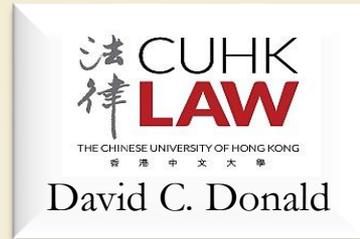
3. **Securities Exchanges to Networked Club**

- a. Technology and creed of competition later offer exit
- b. Services are brought within large broker-dealers
- c. Distributed ledgers could allow clubs to be dismantled

4. **Results**

- a. Market structure is crucial for participants and for fairness
- b. Personal incentives \neq efficient impetus for general good

Thank you!



FIN

My webpage:

<http://www.law.cuhk.edu.hk/people/donald-david-c.php>

My papers:

http://papers.ssrn.com/sol3/cf_dev/AbsByAuth.cfm?per_id=334405