Chapter 17

Segmentation & Integration in International Stock Markets
Overview

Background information

How large & open are markets?
How does Trading, Clearing & Settlement work?
Certificates, Receipts as various aliases for equity

Why don’t markets merge?
Home bias
Differences in Corporate Governance and Legal/Regulatory Environment

Can Unification be Achieved by A Winner Taking All?
Centripetal v. Centrifugal Effects in Networks
The waning attractions of NY
The (re)emergence of London

CFO's summary
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- Centripetal v. Centrifugal Effects in Networks
- The waning attractions of NY
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CFO’s summary
Key messages

- **Markets are fragmented**
  - organized by country, with recently a few exceptions
  - different trading, clearing, settlement systems—but some convergence. Not a major issue anymore
  - different aliases of underlying securities, often reflecting regulatory concerns

- **Why don’t markets merge into one world market?**
  - home bias: investors aren’t pushing
  - different regulation: mandarins won’t agree

- **Will NY take all? (integration via the back door)**
  - there are centripetal forces, network effects, but also centrifugal ones
  - NY is not the perfect solution, and may have overreacted
  - London, HK, etc fight back—successfully
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Background info
- Varying size & openness
- How does Trading, C&S work?
- Certificates, Receipts: various aliases
- Why don’t markets merge?
- Will a winner take all?
- CFO’s summary
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(P. Sercu: International Finance: Theory into Practice)
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|                | Jakarta    | 0    | 0.0  | 0    | 0.0  |
|                | Korea      | 0    | 0.0  | 0    | 0.0  |
|                | Kuala Lmpr | 3    | 0.4  | 4    | 0.4  |
|                | New Zealnd | 55   | 28.9 | 32   | 17.3 |
|                | Osaka      | 1    | 0.1  | 1    | 0.1  |
|                | Philippin  | 0    | 0.0  | 2    | 0.8  |
|                | Shanghai   | 0    | 0.0  | 0    | 0.0  |
|                | Shenzhen   | 0    | 0.0  | 0    | 0.0  |
|                | Singapore  | 40   | 12.0 | 122  | 17.8 |
|                | Taiwan     | 0    | 0.0  | 5    | 0.7  |
|                | Thailand   | 0    | 0.0  | 0    | 0.0  |
|                | Tokyo      | 60   | 3.2  | 28   | 1.2  |

| FIBV all       | foreign | 3649 | 3353 | 3214 |
|                | local   | 44975 | 42041 | 40990 |
|                | ratio, %| 8.1  | 8.4  | 7.9  |
## Stock markets: three hitparades

<table>
<thead>
<tr>
<th>by size</th>
<th>by # foreign Cies</th>
<th>by % foreign Cies</th>
</tr>
</thead>
<tbody>
<tr>
<td>NYSE</td>
<td>15421</td>
<td>719</td>
</tr>
<tr>
<td>Japan</td>
<td>4542</td>
<td>421</td>
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<tr>
<td>Euronext</td>
<td>4223</td>
<td>307</td>
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<td>290</td>
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<td>225</td>
</tr>
<tr>
<td>Canada</td>
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<td>105</td>
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<tr>
<td>Germany</td>
<td>2105</td>
<td>104</td>
</tr>
<tr>
<td>Spain</td>
<td>1781</td>
<td>85</td>
</tr>
</tbody>
</table>

**Source**  Computed from FIBV data, mid-December 2007.
Who’s who in Equitania?

➤ **Top dog**
  ➤ NYSE, 30%
  ➤ even more so since merger with Euronext

➤ **Running up**
  ➤ Tokyo: large (10%) but introvert
  ➤ Nasdaq, LSE, Euronext: 8 to 6%
  ➤ Deutsche Börse
  ➤ Hong Kong rises fast

➤ **An army of small markets**

➤ **Further consolidation**
  ➤ Deutsche Börse bought IS, May 2007
  ➤ OMX (Scandinavian, Baltic exchanges)
  ➤ OMX-NASDAQ-Dubai seem to be clustering (fall 2007)
  ➤ Vienna club (Budapest, Bucharest, Zagreb)
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NY’s international rise is recent—and over?

Figure 16.1: US foreign listings, 1960-2004

Trading systems

- **Quote-driven markets**
  - LSE, SEAQ International, NASDAQ
    + immediacy, minimal liquidity

- **Order-driven markets**
  - public limit order book (PLOB)
  - Canadian and European markets
    + aggregation of info from order flow; transparency

- **Hybrids**
  - NYSE: specialist keep a book, besides mkt makers (which are, in fact, disappearing)
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Independent of trading?

- US: one C&S institution, the Depository Trust Corporation
- Eur: SE’s were “silos”, Eurobonds had Euroclear, Clearstream (now DB);
- Things move: Euronext: Liffe’s LCH & Paris’ Clearnet (now spun off and merged) clears while Euroclear, Crest settle;

![Cost of equities trading (Euro per trade)]

- Borsa Italiana
- Euronext Lisbon
- Euronext A'dam
- LSE
- Euronext Paris
- Virt-x
- Deutsche Boerse
Clearing & Settlement

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![Bar chart showing cost of equities trading for various stock exchanges]
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###背景信息
- **世界股票交易所**
  - (P. Sercu: *International Finance: Theory into Practice*)

####如何进行交易，C&S工作？
- 证书，收据：各种别名
- **为什么市场合并？**
- **是否有一家赢家？**
- **CFO的总结**
Trading internationally—Ad hoc:

- Investor
- Issuer
- Broker
- Domestic market
- List

In domestic order, you buy abroad, your broker buys abroad.
Trading internationally—dual seats/listings:

broker buys seat abroad  
issuer gets cross-listing  
Euronext
More about Euronext’s solution

◊ **Central idea:**
  ▶ brokers “buy” one seat (→ legislation) but get single passport
  ▶ firms get one listing (→ legislation) but get single passport
  ▶ trading in EUR, GBP (and now USD)—stocks, bonds, derivatives

◊ **What else is common?**
  ▶ OS, – *Nouveau Système de Cotation* (NSC), Euronext-Atos – *Concept* (at Liffe)
  ▶ single passport: no aliases need to be created (><< US)
  ▶ Boards (Dir., Mgt): equal representation of all “countries”
  ▶ College of (five) overseers

◊ **Other**
  ▶ Alternext; “new” markets
  ▶ Clearing; settlement & custody: independent
  ▶ Bclear: clears for OTC deals
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- **Internationalisation**
  - 2005III: 25% of trades were cross-border—9% in 2001III
  - Brussels: June 2005, two thirds of the orders came from foreign brokers—9% in 2001Jun
  - Brussels: # of active brokers =120 (35 BE)— up from 80 (55 BE)

- **Costs**
  - down from EUR 1.53 to 0.98 per order
  - lower than DB and SETS?

- **Liquidity**
  - volume: +40%
  - spreads: –20%
  - volatility: –10%
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  - 2005III: 25% of trades were cross-border—9% in 2001III
  - Brussels: June 2005, two thirds of the orders came from foreign brokers—9% in 2001Jun
  - Brussels: # of active brokers =120 (35 BE)— up from 80 (55 BE)

- **Costs**
  - down from EUR 1.53 to 0.98 per order
  - lower than DB and SETS?

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  - volume: +40%
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- **Bearer v Registered / anonymous or not**
  - old v new def of bearer; (non?)deliverable; (a)nomymous?
  - deliverable bearer shares: gone, in Eur, in 2015
  - conversion reg→bearer: custodian issues certificates, at the request of a depository institution—which often doubles as transfer agent and fiscal agent
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**ADRs by Type**

Table 16.3: **ADR programs by type**

<table>
<thead>
<tr>
<th>Description</th>
<th>Level I</th>
<th>Level II</th>
<th>Level III</th>
<th>Rule 144a (tADR)</th>
<th>Global offering</th>
</tr>
</thead>
<tbody>
<tr>
<td>Broading shareholder base using existing shares</td>
<td>unlisted in US</td>
<td>Listed in major US exchanges</td>
<td>Offered and listed in major US exchanges</td>
<td>Private placement to QIB</td>
<td>Global offer of securities in two or more markets, not in issuer home market</td>
</tr>
<tr>
<td>Trading location</td>
<td>OTC pink sheet trading</td>
<td>NYSE, Amex or NASDAQ</td>
<td>NYSE, Amex or NASDAQ</td>
<td>US private placement using PORTAL</td>
<td>US and non-US exchanges</td>
</tr>
<tr>
<td>SEC registration</td>
<td>yes</td>
<td>yes</td>
<td>yes, also for offering</td>
<td>no</td>
<td>depends: (a) private placement: no; (b) new issue: yes, also for offer</td>
</tr>
<tr>
<td>US reporting required</td>
<td>exempt</td>
<td>yes, annual</td>
<td>yes, annual; also for subsequent offerings</td>
<td>exempt</td>
<td>depends: (a) private placement: exempt; (b) new issue: yes, annual; also for subsequent offerings</td>
</tr>
</tbody>
</table>
Outline

Background information
- How large & open are markets?
- How does Trading, Clearing & Settlement work?
- Certificates, Receipts as various aliases for equity

Why don’t markets merge?
- Home bias
- Differences in Corporate Governance and Legal/Regulatory Environment

Can Unification be Achieved by A Winner Taking All?
- Centripetal v. Centrifugal Effects in Networks
- The waning attractions of NY
- The (re)emergence of London

CFO’s summary
Why don’t markets merge? (1): Home bias

▶ **Home bias**: investors aren’t pushing very hard
(2): Legal contexts are very different

- **Corporate governance: relations with stakeholders**
  - is chairman of the Board also CEO?
  - independent directors on the Board;
  - an audit committee;
  - comprehensive information provision towards investors;
  - do poorly performing CEO’s get fired?
  - can board be fired by AGM? Staggered board?
  - can AGM formulate binding instructions?

- **Other institutions in the shareholders environment**
  - Legal rights of shareholders: class actions, derivative actions
  - Takeover market — incl hostile?
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Legal systems

General Legal Systems

- **English-based**  
  *West*: Australia, Canada, Ireland, Israel, New Zealand, UK, US;  
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- **Shareholder?** English-based law is more shareholder-friendly, and French- and German-based code less so; Scandinavia scores in-between.

- **Creditor?** English-based law is also more creditor-friendly, French-based code less so; German-based and Scandinavian law scores in-between.

- **Rule of Law?** Scandinavian and German-based code does best on rule of law, followed by English-type law and, lastly, French-based code.

- But huge differences within groups, often dwarfing those within groups
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**Table 16.4: Stylized differences in legal environments**

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<thead>
<tr>
<th>Shareholders v Directors</th>
<th>Engl</th>
<th>Id, w</th>
<th>Fra</th>
<th>Id, w</th>
<th>Deu</th>
<th>Id, w</th>
<th>Scan</th>
<th>US</th>
<th>UK</th>
</tr>
</thead>
<tbody>
<tr>
<td>One share, one vote: Each ordinary share has one and only one vote, and all votes can be used</td>
<td>0.17</td>
<td>0.00</td>
<td>0.29</td>
<td>0.00</td>
<td>0.33</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Proxy voting by mail allowed:</td>
<td>0.39</td>
<td>1.00</td>
<td>0.05</td>
<td>0.14</td>
<td>0.00</td>
<td>0.00</td>
<td>0.25</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Shares not blocked before AGM: No need to deposit shares for a number of days before AGM</td>
<td>1.00</td>
<td>1.00</td>
<td>0.57</td>
<td>0.14</td>
<td>0.17</td>
<td>0.17</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Cumulative voting OR Proportional representation: Shareholders can cast all their votes for one candidate director OR Minority shareholders may name a proportional number of directors</td>
<td>0.28</td>
<td>0.33</td>
<td>0.29</td>
<td>0.14</td>
<td>0.33</td>
<td>0.33</td>
<td>0.00</td>
<td>1.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Oppressed minority protection: Minority (&lt;10% of shares) can challenge mgmt decisions in court, or force company to buy them out in case of major changes</td>
<td>0.94</td>
<td>1.00</td>
<td>0.29</td>
<td>0.14</td>
<td>0.50</td>
<td>0.50</td>
<td>0.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Preemptive rights: Current shareholders have first right to buy new stock unless they vote otherwise</td>
<td>0.44</td>
<td>0.17</td>
<td>0.62</td>
<td>0.74</td>
<td>0.33</td>
<td>0.33</td>
<td>0.75</td>
<td>0.00</td>
<td>1.00</td>
</tr>
<tr>
<td>% of equity needed to call an extraordinary AGM</td>
<td>0.09</td>
<td>0.08</td>
<td>0.15</td>
<td>0.11</td>
<td>0.05</td>
<td>0.07</td>
<td>0.10</td>
<td>0.10</td>
<td>0.10</td>
</tr>
<tr>
<td>TOTAL anti-director right: Sum of the above</td>
<td>4.00</td>
<td>4.33</td>
<td>2.33</td>
<td>2.50</td>
<td>2.33</td>
<td>1.66</td>
<td>3.00</td>
<td>5.00</td>
<td>5.00</td>
</tr>
<tr>
<td>Mandatory dividends: Percentage of net income that must be distributed to ordinary shareholders</td>
<td>—</td>
<td>—</td>
<td>0.11</td>
<td>0.05</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

**Creditor protection**

<table>
<thead>
<tr>
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<th>US</th>
<th>UK</th>
</tr>
</thead>
<tbody>
<tr>
<td>No automatic stay on secured assets: Reorganization does not suspend creditors rights on assets pledged as security</td>
<td>0.72</td>
<td>0.50</td>
<td>0.26</td>
<td>0.14</td>
<td>0.67</td>
<td>1.00</td>
<td>0.25</td>
<td>0.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Secured creditors first: Secured creditors are paid first, even ahead of workers and government</td>
<td>0.89</td>
<td>1.00</td>
<td>0.65</td>
<td>0.71</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Restriction for going into reorganization: reorganization is possible only subject to restrictions, like creditor consent</td>
<td>0.72</td>
<td>0.67</td>
<td>0.42</td>
<td>0.29</td>
<td>0.75</td>
<td>0.67</td>
<td>0.75</td>
<td>0.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Management does not stay: Court or creditors appoint person(s) in charge of reorganization, thus replacing management</td>
<td>0.78</td>
<td>0.67</td>
<td>0.26</td>
<td>0.14</td>
<td>0.33</td>
<td>0.33</td>
<td>0.00</td>
<td>0.00</td>
<td>1.00</td>
</tr>
<tr>
<td>TOTAL anti-director right: Sum of the above</td>
<td>3.11</td>
<td>2.50</td>
<td>1.58</td>
<td>1.43</td>
<td>2.33</td>
<td>3.00</td>
<td>2.00</td>
<td>1.00</td>
<td>4.00</td>
</tr>
<tr>
<td>Legal reserve: Minimum percentage of share capital needed to avoid dissolution</td>
<td>0.01</td>
<td>0.00</td>
<td>0.21</td>
<td>0.16</td>
<td>0.41</td>
<td>0.23</td>
<td>0.16</td>
<td>0.00</td>
<td>0.00</td>
</tr>
</tbody>
</table>

**Source:** adapted from La Porta et al., 1998. **Key:** Engl, Fra, Deu, and Scan refer to legal systems; “Id, w” refers to western countries within that legal group. Country entries in “Shareholders an Directors” are dummies (Yes=1, no=0), so 0.17 means that 17% of countries have a yes. “Rule of Law” entries are on a scale of 10. Table shows averages per group or subgroup, plus raw data for US and UK.
### Different Legal systems 4

#### Table 16.4 cont’d: Stylized differences in legal environments

<table>
<thead>
<tr>
<th>Rule of Law</th>
<th>8.15</th>
<th>9.71</th>
<th>6.56</th>
<th>7.14</th>
<th>8.54</th>
<th>9.50</th>
<th>10.00</th>
<th>10.00</th>
<th>10.00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Efficiency of legal system: Business International (BI)’s assessment of</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>investors’ 1980-83 assessment of efficiency and integrity of legal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>environment as its affects [{] particularly foreign firms.</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 = best</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rule of Law: International Country Risk (ICR)’s assessment of law and</td>
<td>6.46</td>
<td>8.74</td>
<td>6.05</td>
<td>8.57</td>
<td>8.68</td>
<td>9.75</td>
<td>10.00</td>
<td>10.00</td>
<td>8.57</td>
</tr>
<tr>
<td>order tradition, 1983-1995; 10 = best</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corruption: ICR’s assessment of corruption in government; 10=best</td>
<td>7.06</td>
<td>9.01</td>
<td>5.84</td>
<td>8.00</td>
<td>8.03</td>
<td>9.16</td>
<td>10.00</td>
<td>8.63</td>
<td>9.10</td>
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<td>confiscation or forced nationalisation, 1982-1995; 10=best</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>scaling down of contract, 1982-1995; 10=best</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Accounting standards: Center for International Accounting and Auditing</td>
<td>69.62</td>
<td>72.00</td>
<td>51.17</td>
<td>58.71</td>
<td>62.67</td>
<td>61.33</td>
<td>74.00</td>
<td>71.00</td>
<td>78.00</td>
</tr>
<tr>
<td>Trends: checkboxing for presence of 90 items in balance sheets of</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>”representative sample” of industrial (70%) and financial (30%) firms</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Ownership concentration

| Ownership, 10 largest private firms: Average percentage of common           | 0.43 | 0.29 | 0.54 | 0.49 | 0.34 | 0.49 | 0.37  | 0.20  | 0.19  |
| shareholders owned by top-3 shareholders in top-10 non-financial company   |      |      |      |      |      |      |       |       |       |
| with no Government investors                                               |      |      |      |      |      |      |       |       |       |

**Source:** adapted from La Porta et al., 1998. **Key:** Eng, Fra, Deu, and Scan refer to legal systems; “Id, w” refers to western countries within that legal group. Country entries in “Shareholders an Directors” are dummies (Yes=1, no=0), so 0.17 means that 17% of countries have a yes. “Rule of Law” entries are on a scale of 10. Table shows averages per group or subgroup, plus raw data for US and UK.
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- How does Trading, Clearing & Settlement work?
- Certificates, Receipts as various aliases for equity

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- Home bias
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- The (re)emergence of London

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finding people
  ▶ demand for experts
  ▶ supply of eager, greedy yuppies

finding outside help & expertise

contacts and visibility

signaling

outlets for risk
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- **Clienteles for Regional and Niche Players?**
  - fixed cost and company size: NYSE=RR, Timbuktu=Yugo
  - Insiders’ interest in poor corporate governance!
  - Cost & Hassle of travel; language; legal system
  - Home bias: familiarity helps (with retail investors)
  - Time zone: $24/8 = 3$, so need 3 centers

Next to NY, London: Tokyo? Zürich, Hong Kong, Dubai?
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Exogenous factors

- competitors clean up their act
- political risks, political considerations—investors, companies
- finance has become more footloose
  eg IT, VC, hedge funds etc used to be NY’s preserve, now it’s worldwide
- US immigration controls
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- May 2007: SEC may soon accept IFRS for non-US and US quoted companies!
- Litigation and tort law: Cy responsible, not managers / juries not judges / contingency fees for lawyers / judges never let guilty party pay all costs / punitive damages / suing a firm over fall in stock price /
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The (re)emergence of London

Figure 16.5: Wall Street v Threadneedle Street, 2006

Graph 1
Source The Economist, Nov 26, 2006 (graphs).

Graph 2
The (re)emergence of London

<table>
<thead>
<tr>
<th></th>
<th>UK</th>
<th>US</th>
<th>JP</th>
<th>FR</th>
<th>DE</th>
<th>other</th>
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<td>Cross-border bank lending</td>
<td>20</td>
<td>9</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>44</td>
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<td>Foreign equities listed</td>
<td>15</td>
<td>39</td>
<td>0</td>
<td>13</td>
<td>5</td>
<td>27</td>
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<tr>
<td>Foreign equities turnover</td>
<td>40</td>
<td>34</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>23</td>
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<td>Forex turnover</td>
<td>32</td>
<td>18</td>
<td>8</td>
<td>3</td>
<td>5</td>
<td>34</td>
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<tr>
<td>OTC derivatives turnover</td>
<td>43</td>
<td>24</td>
<td>3</td>
<td>10</td>
<td>17</td>
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<td>Hedge-funds assets</td>
<td>21</td>
<td>66</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>10</td>
</tr>
</tbody>
</table>

Source  FIBV (number of foreign listed stocks); International Financial Services London (other data) as quoted in *The Economist*, Oct 19 2006
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  - different trading, clearing, settlement—but that can be handled
  - different types of securities, often reflecting different views on markets

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  - different regulation: manadarins won’t agree

- **Will NY take all?**
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  - NY is not the perfect solution, and may have overreacted
  - London, HK, etc fight back—successfully
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  ◦ different regulation: manadarins won’t agree

▶ Will NY take all?
  ◦ there are centripetal forces, network effects, but also centrifugal ones
  ◦ NY is not the perfect solution, and may have overreacted
  ◦ London, HK, etc fight back—successfully