Market structure of securities exchanges in Hong Kong

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HKEx and Market Structure Revolution
Center for Financial Regulation and Economic Development
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Modern History of Hong Kong Exchanges

• 1986 - Unification of 4 stock exchanges (Hong Kong Stock Exchange, Far East Exchange, Kam Ngan Stock Exchange, Kowloon Stock Exchange) to form the Stock Exchange of Hong Kong (SEHK)

• 1987 – Wall Street Crash of 1987, with SEHK suspended for four trading days

• 1989 – Securities and Futures Commission established, as the frontline regulator of the securities and futures markets

• 2000 – Merger and demutualization of the Stock Exchange, combining Stock Exchange Hong Kong Limited (SEHK), Hong Kong Futures Exchange (HKFE) and Hong Kong Securities Clearing Company (HKSCC) to form the Hong Kong Exchange Company (HKEx), and listing of HKEx.
Corporate Structure of the HKEx Group

- **HKEx**
  - Futures Exchange (HKFE)
    - HKFE Clearing Corporation (HKFECC)
  - Stock Exchange (SEHK)
    - SEHK Options Clearing House Ltd (SEOCH)
  - HK Securities Clearing Co Ltd (HKSCC)
HKEx DOES VERY WELL IN THE EQUITY MARKET
IPO Funds Raised in Hong Kong

- HKEx has the largest IPO for 3 consecutive years, with IPO Funds raised for Hong Kong and Mainland

<table>
<thead>
<tr>
<th>Exchange</th>
<th>IPO Funds Raised in 2011 (in US$bil)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HKEx</td>
<td>36.2</td>
</tr>
<tr>
<td>NYSE</td>
<td>31.4</td>
</tr>
<tr>
<td>SZSE</td>
<td>26.2</td>
</tr>
<tr>
<td>LSE</td>
<td>19.4</td>
</tr>
<tr>
<td>SHSE</td>
<td>16.3</td>
</tr>
<tr>
<td>NASDAQ</td>
<td>10.7</td>
</tr>
<tr>
<td>SGX</td>
<td>7.6</td>
</tr>
<tr>
<td>BME</td>
<td>5.3</td>
</tr>
<tr>
<td>BM&amp;F</td>
<td>4.7</td>
</tr>
<tr>
<td>KRX</td>
<td>3.6</td>
</tr>
</tbody>
</table>

Source: HKEx
Stock Market capitalization

• HKEx ranked #7 in terms of stock market capitalization
  – Local companies, Mainland enterprises, international listings

<table>
<thead>
<tr>
<th>Exchange</th>
<th>Rank</th>
<th>December 2011 Market value</th>
</tr>
</thead>
<tbody>
<tr>
<td>NYSE Euronext (US)</td>
<td>1</td>
<td>11,795,575.5</td>
</tr>
<tr>
<td>NASDAQ OMX</td>
<td>2</td>
<td>3,845,131.6</td>
</tr>
<tr>
<td>Tokyo SE Group</td>
<td>3</td>
<td>3,325,387.8</td>
</tr>
<tr>
<td>London SE Group</td>
<td>4</td>
<td>3,266,418.1</td>
</tr>
<tr>
<td>NYSE Euronext (Europe)</td>
<td>5</td>
<td>2,446,767.5</td>
</tr>
<tr>
<td>Shanghai SE</td>
<td>6</td>
<td>2,357,423.3</td>
</tr>
<tr>
<td>HKEx</td>
<td>7</td>
<td>2,258,035.2</td>
</tr>
<tr>
<td>TMX Group (Canada) *</td>
<td>8</td>
<td>1,912,121.9</td>
</tr>
<tr>
<td>BM&amp;F BOVESPA (Brazil)</td>
<td>9</td>
<td>1,228,936.2</td>
</tr>
<tr>
<td>Australian SE</td>
<td>10</td>
<td>1,198,187.4</td>
</tr>
</tbody>
</table>

Source: HKEx
Total Turnover of Securitized Derivatives, 2011

- HKEx has the largest turnover of securitized derivatives (including equity warrants and CBBC)

<table>
<thead>
<tr>
<th>Rank</th>
<th>Exchange</th>
<th>Turnover</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>HKEx</td>
<td>576,035.6</td>
</tr>
<tr>
<td>2</td>
<td>Korea Exchange</td>
<td>288,621.0</td>
</tr>
<tr>
<td>3</td>
<td>Deutsche Börse</td>
<td>96,562.1</td>
</tr>
<tr>
<td>4</td>
<td>SIX Swiss Exchange</td>
<td>59,262.2</td>
</tr>
<tr>
<td>5</td>
<td>NYSE Euronext (Europe)</td>
<td>42,563.7</td>
</tr>
<tr>
<td>6</td>
<td>Tel Aviv SE</td>
<td>35,615.4</td>
</tr>
<tr>
<td>7</td>
<td>London SE Group</td>
<td>20,196.0</td>
</tr>
<tr>
<td>8</td>
<td>Taiwan SE Corp.</td>
<td>9,719.2</td>
</tr>
<tr>
<td>9</td>
<td>Singapore Exchange</td>
<td>5,789.4</td>
</tr>
<tr>
<td>10</td>
<td>Australian SE</td>
<td>3,650.0</td>
</tr>
</tbody>
</table>

Source: HKEx
HKEx ENJOYS THE MONOPOLY STATUS
Monopoly Status of the HKEx

- HKEx is the sole exchange operator in Hong Kong. The monopoly status is entrenched in Securities and Futures Ordinance (SFO).

- Under the SFO, Hong Kong has only two recognized exchange companies:
  - Stock Exchange of Hong Kong Limited, and
  - Hong Kong Futures Exchange Limited

- Entities seeking to become recognized exchange companies should apply to the Securities and Futures Commission.

- Trades conducted over ATS are all reported to SEHK and cleared through CCASS (Central Clearing and Automated Settlement System) operated by HKSCC, so that HKEx still collects the fees.
Off-Exchange Trading

- ATS trading accounts for less than 3% of trading volume in Hong Kong
- Hong Kong is not alone in Asia with equity trading volume highly concentrated in stock exchanges and little off-exchange volume
- No significant plan in Hong Kong to promote off-exchange trading

Source: Celent
ATS Market in Hong Kong

- Hong Kong is slower in developing the ATS market as compared with the Asian counterparts

Source: Celent
Equity market turnover

- Hong Kong has a lower equity market turnover
  - High trading cost?
  - Less high frequency trading?

Source: World Federation of Exchanges
Business Analysis of HKEx
Stock Exchange Valuation

- HKEx has the highest valuation and P/E in the world
  - Growth potential?
  - Monopoly right?

Source: Goldman Sachs
Sources of HKEx Revenue

• Trading fees, clearing and settlement fees are more important than listing fees

2011 HKEX Revenue and Other Income Breakdown (in $ million)

- Stock Exchange listing fees 12%
- Trading fees and trading tariff 37%
- Clearing and settlement fees 21%
- Depository, custody and nominee services fees 9%
- Market data fees 8%
- Other revenue and other income 8%
- Net investment income 5%

Source: HKEx
Issues about Development of Securities Market in Hong Kong
Commercial interest and Public interest of HKEx

- HKEx is a profit-oriented entity and has to satisfy the shareholders. How to balance the commercial interest of HKEx with the public interest to promote the financial market?

- Governance structure of HKEx
  - Board of HKEx comprises 13 directors: 1 CEO, 6 appointed by the HKSAR government, and 6 elected
  - HKSAR government owns 5.88 percent of HKEx

- HKEx is the front-line regulator of listed issuers (including listed companies), while SFC has the statutory power to maintain and promote the fairness, efficiency, competitiveness, transparency and orderliness of the securities market.

- Dual-filing system for company listing: applications sent to HKEx and SFC, and SFC has the right to reject an application.
Should Hong Kong have more competition in stock exchanges or not?

Yes, more competition
- Global trend of alternative trading venues
- Lower trading cost
- More innovative services
- Hong Kong might lose to the global competitors

No, competition is adequate
- Global trend of stock exchange consolidation
- Global competition is keen despite local monopoly
- Trading system is not consolidated and market fragmentation of liquidity
- Fierce competition might drive down quality of the market
- Higher surveillance and regulation cost
Major fees for each securities transaction:
- Brokerage fee: Negotiable between brokers and their clients
- Transaction Levy: 0.003% of transaction value
- Investor Compensation Levy: 0.002% of transaction value
- Trading Fee: 0.005% of transaction value
- Trading tariff: $0.5 for each transaction
- Stamp Duty: 0.1% of transaction value
- Transfer Deed Stamp Duty: $5 for each transfer deed
- Transfer Fee: $2.5 per share certificate

Bid-ask spread (minimum spread in HKEx):

<table>
<thead>
<tr>
<th>Prices of Securities</th>
<th>Minimum Spread</th>
<th>% spread (Between)</th>
</tr>
</thead>
<tbody>
<tr>
<td>From 0.01 to 0.25</td>
<td>0.001</td>
<td>10.00% 0.40%</td>
</tr>
<tr>
<td>Over 0.25 to 0.5</td>
<td>0.005</td>
<td>2.00% 1.00%</td>
</tr>
<tr>
<td>Over 0.50 to 10</td>
<td>0.01</td>
<td>2.00% 0.10%</td>
</tr>
<tr>
<td>Over 10.00 to 20</td>
<td>0.02</td>
<td>0.20% 0.10%</td>
</tr>
<tr>
<td>Over 20.00 to 100</td>
<td>0.05</td>
<td>0.25% 0.05%</td>
</tr>
<tr>
<td>Over 100.00 to 200</td>
<td>0.1</td>
<td>0.10% 0.05%</td>
</tr>
<tr>
<td>Over 200.00 to 500</td>
<td>0.2</td>
<td>0.10% 0.04%</td>
</tr>
<tr>
<td>Over 500.00 to 1,000.00</td>
<td>0.5</td>
<td>0.10% 0.05%</td>
</tr>
<tr>
<td>Over 1,000.00 to 2,000.00</td>
<td>1</td>
<td>0.10% 0.05%</td>
</tr>
<tr>
<td>Over 2,000.00 to 5,000.00</td>
<td>2</td>
<td>0.10% 0.04%</td>
</tr>
<tr>
<td>Over 5,000.00 to 9,995.00</td>
<td>5</td>
<td>0.10% 0.05%</td>
</tr>
</tbody>
</table>

HKEx collects only trading fee and trading tariff.
Monopoly right for HKEx to ensure market quality

- Stock exchanges have to promote the market (attracting more listing) and be front-line regulators of listed issuers

- In 2011, HKEx derives 37% of revenues from trading fees and 12% from listing fees. Therefore, company listing does not guarantee sufficient income for stock exchanges if there is not enough trading.

- ATS does not have to promote the market or regulate listed issuers.

- Price competition from ATS can push down profit margin of HKEx so that it will
  - Allow more company listing (lower the listing quality)
  - Reduce the surveillance cost

- Conclusion: Needs to control the extent of competition
Can we delegate market promotion and front-line regulation completely to regulators?

- Regulators do not have the front-line market knowledge.

- Incentives of regulators are different from stock exchanges which seek to boost profits from market development.

- HKEx + SFC to jointly perform regulatory roles will strike a balance to market quality and product development.

- Conclusion: The current regulatory framework in Hong Kong is broadly sound.
However, Hong Kong is Behind in Derivatives Trading in Organized Exchanges
Turnover in Derivatives Contracts

- Hong Kong lags behind in derivatives contracts (futures/options)

<table>
<thead>
<tr>
<th>Rank</th>
<th>Exchange</th>
<th>Contracts (million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Korea Exchange</td>
<td>3,856.5</td>
</tr>
<tr>
<td>2</td>
<td>CME Group</td>
<td>2,313.4</td>
</tr>
<tr>
<td>3</td>
<td>EUREX</td>
<td>2,034.7</td>
</tr>
<tr>
<td>4</td>
<td>BM&amp;F BOVESPA (Brazil)</td>
<td>1,251.9</td>
</tr>
<tr>
<td>5</td>
<td>National Stock Exchange India</td>
<td>1,220.9</td>
</tr>
<tr>
<td>6</td>
<td>NYSE.Liffe Europe</td>
<td>1,094.1</td>
</tr>
<tr>
<td>7</td>
<td>Chicago Board Options Exchange</td>
<td>836.5</td>
</tr>
<tr>
<td>8</td>
<td>NASDAQ OMX (US)</td>
<td>706.5</td>
</tr>
<tr>
<td>9</td>
<td>NYSE Euronext (US)</td>
<td>651.4</td>
</tr>
<tr>
<td>10</td>
<td>International Securities Exchange</td>
<td>461.6</td>
</tr>
<tr>
<td>11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>HKEx</td>
<td>139.4</td>
</tr>
</tbody>
</table>

Source: HKEx
Commodity Markets in Hong Kong

- Until 2011, there is not much development in derivatives markets than equity Index related products.

- HKEx’s core business has been on equity market and securitized derivatives (warrants/CBCC)
  - The predecessor of Hong Kong Futures Exchanges is the Hong Kong Commodity Exchange, which has been a derivatives leader in the Asia-Pacific region. The main products traded on the commodity exchange were cotton futures, sugar futures, soybean futures and gold futures.

- Hong Kong Government to develop commodity markets.

- However, Hong Kong Futures Exchange (HKFE), under HKEx, is the only recognized exchange in Hong Kong

- Hong Kong Mercantile Exchange (HKMEx) approved by SFC in April 2011
  - In the form of ATS
  - Offers an exchange-like platform for the trading of futures contracts
  - Provides international market participants access to the booming mainland Chinese commodities market
Futures/Options Traded in Hong Kong

- **Equity Index Products**
  - Hang Seng Index Futures & Options
  - H-shares Index Futures & Options
  - Dividend Futures
  - HSI Volatility Index
  - Brics Futures (commence on Mar 30, 2012)

- **Equity Products**
  - Stock Futures
  - Stock Options

- **Interest Rate and Fixed Income Products**
  - HIBOR Futures
  - Three-Year Exchange Fund Note (EFN) Futures

- **Gold Futures**

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HKEx

- USD-settled Gold Futures Contract
- USE-settled Silver Futures Contract
- Plans to launch RMB-settled gold and copper futures in July

HKMEx
Since the approval of HKMEx, HKEx has become more aggressive in penetrating into the commodity market business.

- Signed MOU with
  - Dalian Commodity Exchange (July 6, 2011)
  - Zhengzhou Commodity Exchange (Nov 14, 2011)
  - China Financial Futures Exchange (Jan 11, 2012)
  - Shanghai Futures Exchange (Mar 5, 2012)
- Rumour that HKEx bids for London Metal Exchange
- Plans to launch RMB-denominated commodity futures
Competition in Derivatives Market in Hong Kong

- Unlike stock exchanges, futures exchanges do not have to regulate listed issuers.
- A level-playing field that can have more competition.
- Should facilitate the competition between HKEx and HKMEx and for more derivatives products to be introduced.
- While HKEx can get into commodity derivatives business, HKMEx can also get into financial derivatives and other non-standardised derivatives catered for Mainland China market.
Conclusion

- Hong Kong is ahead in equity market development, but behind in derivatives market.

- HKEx has a monopoly status, but this might fit the public interest in promoting Hong Kong as an international financial centre.

- Uncontrolled entry of ATS will cause fierce competition and might hurt market quality and development.

- Should facilitate competition in the derivatives market.
THANK YOU VERY MUCH