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Research Paper No. 43: Review of the Hong Kong Securities Market in 2008

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Executive Summary

1. In 2008, worldwide equity markets slid amid the global financial turmoil and its pressure on the broader economy. The credit ratings of financial institutions were downgraded and some major investment banks reported solvency problems. Concerns about company insolvency have caused credit tightening. Spending by corporations and individuals was dampened. The US economy entered into a recession not seen in decades and affected other major economies as well.

2. In order to boost the economy, the US Fed cut the Fed Funds Target Rate to 0-0.25%. Worldwide governments announced stimulus plans and central banks introduced expansionary monetary measures. Market stabilised somewhat late in the year amid optimism over various governments' efforts, but the economic outlook remained cloudy. As at the end 2008, major markets had tumbled between 31.3% to 66% from their end-2007 levels.

3. In the US, the Dow and S&P500 tumbled 33.8% and 38.5% respectively, posting the biggest yearly decline since 1930's. Market volatilities also hit a level higher than that in 1987. Major European markets plunged the range of 31.3% to 42.7%.

4. Regional markets also fell on worsening economic outlook and a strong yen. Major benchmark indices tumbled between 39.3% to 66%. Most markets posted the biggest yearly declines ever or since the Asian financial crisis in 1997.

5. In the Mainland, during the first half of the year, there were concerns over an economic slowdown and monetary tightening to curb inflation. Undermined by the worldwide financial turmoil later in the year, concerns over an economic slowdown heightened. The Mainland government also eased monetary policies and introduced stimulus packages. During 2008, the Shanghai Composite Index dropped 65.4% from its end-2007 level.

6. In Hong Kong, the performance of local markets largely tracked those of overseas markets. In 2008, the HSI tumbled 48.3%, posting the biggest yearly drop since 1974. The HSCEI declined 51.1%, its biggest yearly drop ever. Market volatilities surged. The intra-day volatility averaged 2.7% in 2008, compared to 1.5% in 2007 or 2.8% in 1998. The average daily turnover of the cash market dropped 18.2% to $72.1 billion during 2008.

7. In view of higher market volatilities, the SFC maintained a close dialogue with the Hong Kong Exchanges and Clearing Ltd (HKEx), the clearing houses, brokers and funds houses to monitor market operations. It observed that the financial turmoil did not disrupt the operation of the equities and derivatives markets. The trading, clearing and settlement functions of the HKEx proceeded as normal.

8. Initial public offering (IPO) activities slowed due to sluggish market performance, but this was about in line with the overseas markets. Trading of derivative warrants dropped amid a surge in implied volatilities, but a smaller derivative warrants market was offset by the growing market for callable bull and bear contracts (CBBCs). They accounted for 25% of total market turnover, compared to 22% in 2007. The exchanged-traded fund (ETF) market continued to grow with seven new listings tracking regional equities and spot gold in 2008. The trading of ETFs also rose 177% and accounted for 2.5% of the market turnover.

9. The open interest of the derivatives market dropped, but trading increased. During 2008, the average daily turnover in the futures market rose 38% to 184,040 contracts. HSI futures and HSCEI futures remained the most actively traded futures contracts. For the options markets, the average daily turnover was 248,086 contracts, up 10% from the 2007 level. Stock options remained the most actively traded among options.

Worldwide financial market conditions

10. In 2008, worldwide equity markets slid as the global financial turmoil exerted adverse impact on the broader economy. Triggered by a series of defaults on subprime mortgages in the US a year ago, the turmoil affected a wider range of financial assets and has spread to other economies elsewhere. Additionally, concerns about company insolvency have caused credit tightening, which unavoidably will worsen the world economic outlook. Governments worldwide have announced stimulus plans to boost growth while central banks introduced expansionary monetary measures. Although markets stabilised towards the end of the year on optimism over governments' rescue measures, the effectiveness of the various stimuli is yet to be evident. As at the end 2008, major markets had tumbled between 31.3% to 66% from their end-2007 levels.

11. The global financial turmoil has been around for more than a year and it remains uncertain how soon the economy will recover. Financial markets are likely to remain volatile.

Financial turmoil

12. The US subprime problem surfaced in 2007 as the property market consolidated. Financial institutions suffered from losses in related investments, such as collateralised debt obligations (CDOs) and asset-backed securities (ABS). Their credit ratings and financial soundness were affected. Some major investment banks that became insolvent either collapsed or were acquired.

    (a) In March, Bear Stearns faced serious liquidity problem and was eventually rescued by JPMorgan on the back of a guarantee from the US government.

    (b) In September, Fannie Mae and Freddie Mac, were bailed out by the US government. At around the same time, Lehman Brothers filed for bankruptcy protection. AIG, which had also reported significant liquidity problems, was rescued with emergency funding from the US government. Likewise, several other major commercial banks were also rescued by the US government, while some were taken over by other financial institutions.

    (c) In the meantime, the financial turmoil also spread to Europe and hit commercial banks, investment banks and mortgage companies there as well.

13. Credit markets tightened as banks hesitated to lend due to intensifying worries over counterparty default risks. This, in turn, further worsened corporate liquidity conditions.

Economic downturn

14. The financial industry experienced an unprecedented period of consolidation, which led to a significant slowdown in worldwide economic activities. Corporations faced difficulties in obtaining loans for their daily operations and had to curb spending.

Unemployment worries and falling home values also crimped consumer spending. The US economy entered a recession to a degree not seen in decades and affected other major economies.

15. Key US economic indicators slid to multi-year lows, pointing to a lengthy and deep recession. For instance, the decline in gross domestic product (GDP) growth during the third quarter accelerated to the degree last seen during the burst of the tech bubble; the University of Michigan consumer confidence index slid to its lowest level since the late 1970's, and the ISM Manufacturing Index also dropped to its lowest point since the early 1980's.

16. There was no conclusion as to when the economies could bottom out. The cloudy economic outlook and worries over corporate earnings lingered and weighed on the equities markets.

Market supportive measures

17. To ease the credit crunch, various central banks around the world injected liquidity into the banking system and cut interest rates during 2008. The US Federal Reserve cut the Fed Funds Target Rate to 0% to 0.25% from 4.25% as of the end of 2007. Other central banks also cut their benchmark interest rates to historical or multi-year lows. In addition, governments and central banks around the world launched rescue packages to help the financial sector, including plans to purchase troubled assets, moves to acquire shares of banks and to guarantee deposits. In early October, the US government approved a bailout plan of about US$700 billion. It was hoped that the interest rate cuts and the rescue plans would improve banks' balance sheets and help them regain market confidence. Since then, credit markets eased somewhat, with the three-month US dollar London Interbank Overnight Rate (LIBOR) falling to below 1.5% in late December from 4.8% in October.

18. In addition, worldwide governments announced stimulus plans to boost the broader economy. In the US, part of the US$700 billion bailout plan was used to inject much needed funds into the auto industry to avoid a wider negative impact on the economy. The then US President-elect Obama also announced plans to launch infrastructure projects. In the Mainland, the government also announced a RMB4 trillion stimulus plan.

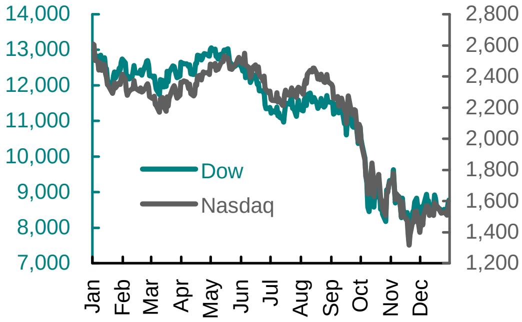
Market Performance

US/Europe

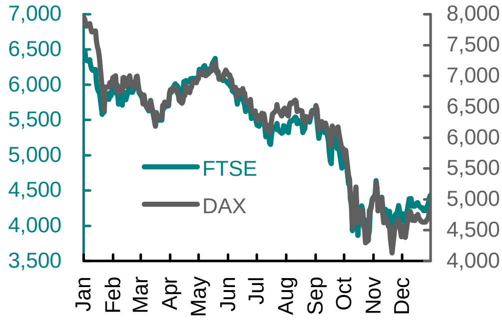
19. On 10 March 2008 immediately after the collapse of Bear Stearns, the Dow was 11.5% lower than its end-2007 level. While markets rebounded strongly after the Fed and JPMorgan rescued the bank, concerns over the health of financial institutions in general and economic worries kept weighing on equities. In September, the collapse of the top two mortgage lenders and Lehman Brothers sparked another round of financial turmoil and heightened recession fears. In November, markets reached their troughs for the year, although later stabilising somewhat on hopes of various stimulus plans. During the year, the Dow and the S&P500 tumbled 33.8% and 38.5% respectively, posting their biggest yearly declines since 1930's. Nasdaq also fell 40.5%, its biggest decline ever.

20. Volatility increased. The intra-day volatility of the Dow rose to an average of 2.7% in 2008, compared to 1.1% in 2007 and 2.1% in 1987. The implied volatility of the S&P500 options retreated to 35.6% as at the end of 2008 from the peak of 70% during the year, but it was still at historical high levels.

21. Major European markets also plunged. In 2008, the FTSE, DAX and CAC lost 31.3%, 40.4% and 42.7% respectively.



Performance of the Dow and Nasdaq



Performance of the FTSE and DAX

Source: Bloomberg

Performance of Major Stock Markets

		end-2008	% change from end-2007 level		end-2008
		Index Level	in local currency	in USD	PE ratio
HK	HSI	14,387.48	-48.3%	-47.9%	8.52
	HSCEI	7,891.80	-51.1%	-50.7%	10.02
China	Shanghai Comp	1,820.81	-65.4%	-63.0%	14.12
Japan	Nikkei 225	8,859.56	-42.1%	-28.6%	16.64
Australia	AOI	3,659.30	-43.0%	-54.2%	10.77
Taiwan	TWSE	4,591.22	-46.0%	-46.6%	9.31
Korea	KOSPI	1,124.47	-40.7%	-56.0%	8.80
Singapore	STI	1,761.56	-49.2%	-48.8%	6.00
Thailand	SET	449.96	-47.6%	-55.1%	7.01
Malaysia	KLCI	876.75	-39.3%	-42.1%	10.09
Indonesia	JCI	1,355.41	-50.6%	-58.3%	8.26
Philippines	PCOMP	1,872.85	-48.3%	-55.1%	9.51
India	Nifty	2,959.15	-51.8%	-61.1%	10.15
Vietnam	VN	315.62	-66.0%	-68.8%	n.a.
MSCI Asia Pacific Ex-Japan (USD)		247.35	-	-53.3%	9.12
US	Dow	8,776.39	-33.8%	-33.8%	10.59
	Nasdaq	1,577.03	-40.5%	-40.5%	31.73
	S&P500	903.25	-38.5%	-38.5%	20.11
UK	FTSE100	4,434.17	-31.3%	-49.5%	8.88
Germany	DAX	4,810.20	-40.4%	-42.9%	10.66
France	CAC	3,217.97	-42.7%	-45.1%	8.29

Sources: Bloomberg

Asia

22. Regional markets fell on worsening economic outlook and investor sentiment. The strengthening of the yen (to 90.6 yen to the US dollar as at end 2008 from 111.8 a year ago) intensified the unwinding of carry trades. Major benchmark indices in Asia tumbled, with losses ranging from 39.3% in Malaysia to 66 % in Vietnam. Most markets posted their biggest yearly declines historically or since the Asian financial crisis in 1997.

Mainland

23. At the start of 2008, a large part of the Mainland was hit by the biggest snowstorm in a decade. Consumer inflation rose to a 12-year high of 8.7% in February. In May, the massive earthquake in Sichuan caused further economic losses. Worries over an economic slowdown and monetary tightening to curb inflation increased. In the first half of 2008, the People's Bank of China (PBoC) raised the bank reserve requirement ratio six times by a total of 300 basis points (bps) to 17.5%.

24. In the second half, undermined by the worldwide financial turmoil, worries over an economic slowdown intensified. In addition, concerns about an oversupply of shares in the stock market (as lock-up periods under the share reform programme expired) also weighed on the stock market.

25. To avoid a hard landing of the economy, the PBoC shifted its policy stance from monetary tightening to easing. It cut the benchmark interest rate five times by a total of 216 bps and cut the bank reserve requirement ratio three times by a total of 200 bps during the second half. The government also introduced a RMB4 trillion stimulus plan to boost the economy. Markets stabilised thereafter.

26. After rising 97% in 2007, the Shanghai Composite Index fell to a trough last October and closed the year with a loss of 65.4%, posting the biggest-ever yearly decline.

Hong Kong

27. During 2008, the performance of the local markets largely tracked those overseas and in the Mainland.

    (a) On 17 March, undermined by losses in overseas markets due to the failure of Bear Stearns, the HSI was 24.2% lower than its end-2007 level. Although the market rebounded strongly later as overseas markets rallied, the rebound was short-lived.

    (b) The weak Mainland market weighed on the local market as well.

    (c) In the second half, local markets were hurt again, this time, by the global financial turmoil. On 27 October, the HSI tumbled to the 2008 trough of 11,016 points, the lowest level seen since May 2004.

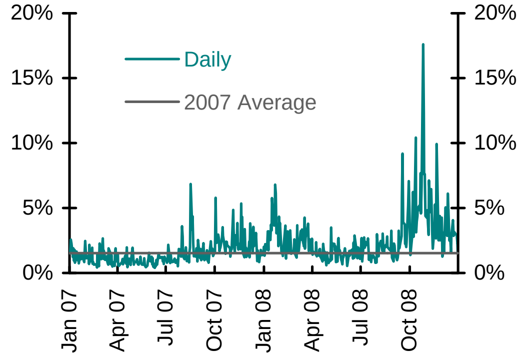
    (d) In late 2008, following the stabilising of overseas market amid optimism over worldwide stimulus measures, local markets also rebounded somewhat.

28. In 2008, the HSI tumbled 48.3%, posting the biggest drop since 1974. The HSCEI declined 51.1%, marking the biggest yearly drop in its history.

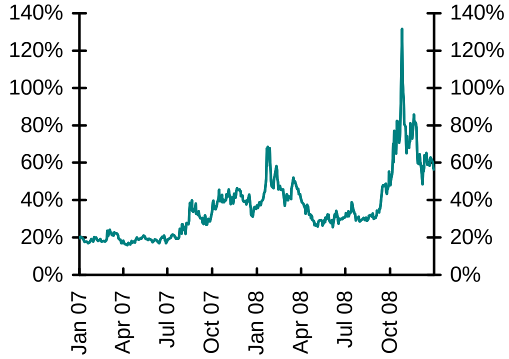
Performance of the HSI and HSCEI during 2008

Source: Bloomberg

29. Market volatility surged. The intra-day volatility of the HSI averaged 2.7% during 2008, compared to 1.5% in 2007 and 2.8% in 1998. The implied volatility of the HSI options also once surged to a record high of 132%. Although it retreated to about 56% as at year-end, it was still among the historical highs.



Intraday Volatility of the HSI



Implied Volatility of HSI Options

Remark:

$$\text{Intraday Volatility} = \frac{(\text{Day High} - \text{Day Low})}{0.5^*(\text{Day High} + \text{Day Low})}$$

Source: Bloomberg

Impact of the global financial turmoil locally

30. The global financial turmoil eroded the financial strength of some international commercial banks and investment banks. It also raised market volatility.

31. In view of this, the SFC maintained close dialogue with the HKEx, clearing houses and market participants to monitor operation of the market. During the year, the operation of the equities and derivatives markets was not affected by the financial turmoil. The trading, clearing and settlement functions of the HKEx proceeded as normal.

32. The SFC also closely monitored brokers, including conducting regular stress testing of their liquid capital position and making enquiries about their operations particularly on more volatile days.

33. The SFC kept a watch over fund redemptions. Although fund houses received higher-than-average redemption requests on days that were particularly volatile, no problem was reported on redemption or liquidity.

Trading activities in the local stock market

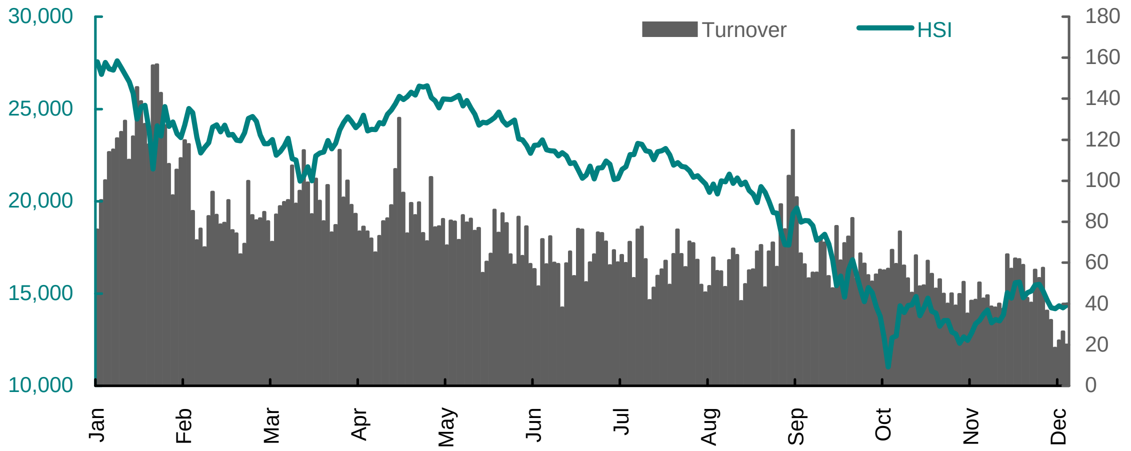
34. During 2008, the average daily turnover in the cash market dropped 18.1% to $72.1 billion from $88.1 billion in 2007. On a monthly basis, the decline was more significant. During December 2008, the average daily turnover was $43.1 billion, 63.9% lower than $119.5 billion in January 2008.

35. However, it is worth noting that the decline in turnover value was very much related to a decline in stock prices. The turnover volume indeed rose. With HSI constituent stocks, for instance, the average daily trading volume rose 24.5% to 2.5 billion shares.

Average Daily Turnover ($ bn)

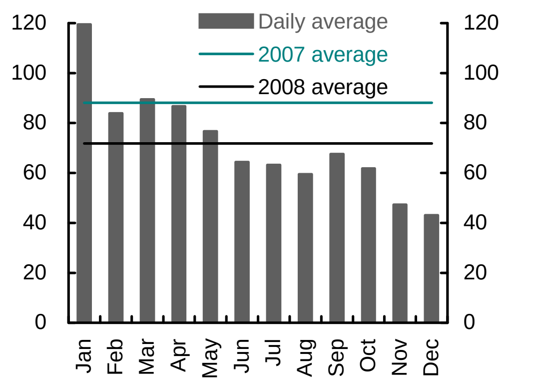
	2008	% change over 2007
HSI (ex H shares & red chips)	11.2 (15.6%)	-7.1%
Mainland Stocks	34.4 (47.9%)	-19.5%
H-shares	*25.1 (34.9%)*	*-20.7%*
Red chips	*9.3 (13.0%)*	*-16.2%*
Derivative Warrants	14.0 (19.5%)	-26.5%
CBBCs	4.2 (5.9%)	+1,362.3%
Others	8.2 (11.3%)	-41.1%
Market Total	**72.1 (100%)**	**-18.1%**

Sources: HKEx and SFC Research

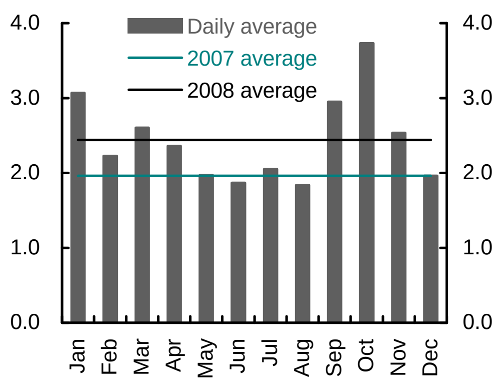


HSI Performance and Market Turnover ($ bn) in 2008

Source: Bloomberg



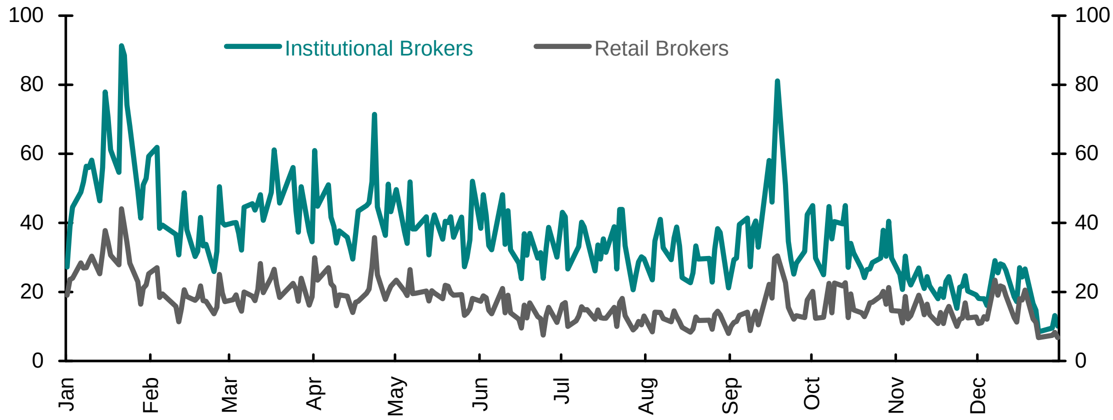
Trading value of the Hong Kong market ($ bn)



Trading volume of HSI constituent stocks (bn shares)

Source: Bloomberg

36. By broker type, the proportion of equities trading by institutional brokers increased slightly to 68% in 2008 (compared to 63% in 2007). The proportion of retail brokers was 32% (37% in 2007).



Daily Turnover by Broker Types during 2008 ($ bn)

Source: HKEx and Bloomberg

Short-selling activities

37. Short-selling activities increased in 2008, both in absolute terms and as a percentage of total trading. The increase probably was related to the sluggish market performance and more trading opportunities amid a more volatile market. Nevertheless, it is worth noting that there is no consistent relationship between market performance and changes in short selling activities.

38. During 2008, the average daily short-selling turnover was $5.4 billion in 2008 or 7.5% of the total market turnover (compared to $5.3 billion and 6% in 2007). Despite tighter short-selling regulations overseas in late September 2008, local short-selling turnover in the fourth quarter was lower than the levels recorded earlier. During that quarter, the average daily short-selling turnover was $3.3 billion or 6.6% of the total market turnover, compared to $5.7 billion or 7.4% for the second quarter and $5.4 billion or 8.5% for the third quarter up to 19 September 2008 (ie shortly after Lehman Brothers collapsed), the day overseas markets started restricting short-selling activities.

IPO activities and performance

39. IPO activities slowed in 2008. This was very much related to the sluggish market performance and about in line with the overseas major markets. IPO funds raised overseas plunged between 60% to 90% in 2008, compared with 2007.

40. Last year, 29 IPOs (27 on the main board and two on the Growth Enterprise Market) were launched. This was far lower than the total of 80 IPOs in 2007. The total fund raised by IPO was $66.0 billion, 77% lower than the $292.4 billion raised in 2007. Of the 29 IPOs, four were H-share companies that raised a total of $29.5 billion, 61% lower than in 2007. On debut, 12 stocks fell below their IPO prices. As of year-end, the

performance of the 29 IPOs ranged from a loss of 75.5% to a gain of 61.9% from their IPO prices.

Derivative warrants

41. The market value and turnover of the derivative warrants market shrank in 2008. The shrinkage was in part due to increasing market volatility that resulted in a jump in the implied volatility of derivative warrants, which undermined their attractiveness. Investors therefore turned to CBBCs, which are similar to derivative warrants but not subject to the impact of implied volatility. The smaller derivative warrants market was therefore offset by the growing CBBC market.

42. As at the end of 2008, there were 3,011 derivative warrants with a total market value of $4 billion (4,483 and $43.3 billion as at the end 2007). The average daily turnover of derivative warrants during 2008 was $14 billion, accounting for 19.5% of the total market turnover ($19.1 billion and 21.7% in 2007).

43. By types of underlying assets, trading in derivative warrants issued on the benchmark indices shifted to CBBCs. However, trading in derivative warrants issued on individual stocks did not shift much. Therefore, total trading in derivative warrants and CBBCs remained relatively stable during 2008. Their aggregate trading accounted for 25.3% of total market turnover, compared to 22.0% in 2007.

Callable Bull/Bear Contracts

44. The CBBC market posted robust growth in 2008, underpinned by the entry of new issuers in the first half. As at the year-end, the number of issuers increased to 10, compared to only three as at the end of 2007. The number of CBBCs also rose nine times to 1,314 from 131 as at the end of 2007. Most were issued on the HSI and HSCEI. The CBBC market value rose 261% to $1.1 billion from $300 million as at the end of 2007. Trading activities surged, with turnover averaging $4.2 billion a day in 2008 or 5.9% of the market total (compared to $300 million or 0.3% in 2007).

Exchange Traded Funds

45. The ETF market continued to grow, with the addition of seven ETFs in 2008 that tracked regional indices and spot gold. This lifted the total number of ETFs to 24 as at year-end from 17 as at end-2007. The total ETF market value rose 152% to $266.5 billion at year-end from $105.6 billion at end- 2007. The average ETF daily turnover rose 177% to $1.8 billion or 2.5% of total market turnover during 2008 (compared to $0.7 billion and 0.7% in 2007).

Derivative markets

46. Trading in the derivative contracts rose, while open interest dropped in 2008. During 2008, the average daily turnover in the futures market rose 38% to 184,040 contracts, compared to 133,566 contracts in 2007. While open interest in futures contracts fell 14% to 184,551 contracts as at the end of 2008, HSI futures and HSCEI futures remained the most actively traded among futures contracts. During the year, the average daily turnover in HSI futures was 89,368 contracts, accounting for 48.6% of all futures trading. The corresponding figures for HSCEI futures were 59,428 contracts or 32.3%.

47. For the options market, the average daily turnover was 248,086 contracts during 2008, up 10.0% from a year ago. Stock options were the most actively traded options, accounting for 90.7% of all options trading. As at the end of 2008, open interest in stock options counted 3,984,346 contracts, 25% lower than the end-2007 level.

Average Daily Trading Volume of Derivatives by Product Type (Contracts)

		2008	2007	2006
Futures	HSI Futures	89,368	70,045	51,491
	Mini-HSI Futures	32,761	17,657	8,665
	HSCEI Futures	59,428	44,271	19,759
	Mini-HSCEI Futures*	1,726^	n.a.	n.a.
	Hang Seng China H-Fin Index Futures**	0.04	18^	n.a.
	FTSE/Xinhua China 25 Index Futures	0.2	13	33
	Stock Futures	1,058	1,435	413
	3-Month HIBOR Futures	98	129	56
	Other futures products***	66^	3	1
	Total Futures	**184,040**	**133,566**	**80,418**
Options	HSI Options	15,723	30,531	16,582
	Mini-HSI Options	646	284	216
	HSCEI Options	6,642	7,052	3,070
	FTSE/Xinhua China 25 Index Options	2	6	32
	Stock Options	225,074	187,686	73,390
	Total Options	**248,086**	**225,560**	**93,290**
Total Futures and Options		**432,126**	**359,125**	**173,708**

Remark: * Mini-HSCEI Futures were launched on 31 March 2008
** Hang Seng China H-Financials Index Futures were launched on 16 April 2007
*** One-Month HIBOR Futures, Three-year Exchange Fund Note Futures and Gold Futures
^The average daily trading volume was based on the available trading days after the product was launched
Sources: HKEx and SFC Research

Conclusion

48. In 2008, the global financial turmoil swept through worldwide economies and financial markets. Benchmark stock indices fell to multi-year lows and the PE ratios of most markets dropped to single-digit levels. It remains uncertain how soon the economy will recover. Meanwhile, financial markets are likely to remain volatile.