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Research Paper No. 67: Half-yearly Review of the Global and Local Securities Markets (Featuring Stock Market Trading, Short Selling and After-Hours Trading)

31 July 2020

Executive Summary

1. During the first half of 2020, the Dow and S&P fell 9.6% and 4.0% respectively whilst the Nasdaq rose 12.1%. Volatility heightened. Major US indices hit record highs in February 2020 before correcting sharply in March 2020. The Level 1 market-wide circuit breaker was triggered four times. Recession fears heightened amidst the spread of COVID-19. Escalated tensions with the Mainland further weighed on market sentiment. Nevertheless, the market rebounded from the trough in March 2020 on optimism about stimulus measures and the gradual reopening of the economy. Technology stocks outperformed due to increased demand for online services during lockdowns.

2. In Europe, the FTSE, DAX and CAC fell 18.2%, 7.1% and 17.4% respectively. The FTSE hit its lowest level since 2011, whilst the DAX and CAC once fell to their lowest levels since 2013. COVID-19 fears dragged down the markets amidst the rapid spread of infections. Worries grew about the negative impact of the pandemic on economic growth and corporate earnings given the prolonged lockdowns. At the same time, large-scale fiscal stimulus and monetary easing by governments and central banks provided support.

3. On the Mainland, the Shanghai Composite Index (SHCOMP) fell 2.1% whilst the Shenzhen Composite Index (SZCOMP) rose 14.7%. The decline in the SHCOMP was moderate compared to overseas markets amidst an early government effort to mitigate the impact of the epidemic. Nevertheless, there were worries that factory shutdowns might disrupt supply chains whilst travel bans and other containment measures might dampen consumer spending. Concerns about trade and other tensions with the US weighed on the market but losses were capped by continued policy stimulus. The Shenzhen market outperformed as technology stocks advanced.

4. The Hang Seng Index (HSI) and the Hang Seng China Enterprises Index (HSCEI) fell 13.3% and 12.6% respectively. The Hong Kong stock market declined on heightened local political uncertainties and a worsened economic outlook. The Mainland announced the enactment of the National Security Law in Hong Kong. The US began to revoke Hong Kong's special trade status, raising concerns about its role as a global financial hub. Higher volatility in overseas markets and macro external factors also weighed on the market. The rapid spread of COVID-19 and the imposition of lockdown measures affected corporate earnings. Tensions between the Mainland and the US as well as oil price volatility affected investor sentiment.

5. Looking ahead, the Hong Kong market may face uncertainties, including:

   - tensions between the Mainland and the US;
   - the enactment of the National Security Law and local political unrest;
   - further volatility in the US market; and
   - concerns about the Mainland's economic outlook.

Performance of stock markets

The US

6. During the first half of 2020, the Dow and the S&P fell 9.6% and 4.0% respectively whilst the Nasdaq rose 12.1%. Following gains in 2019, all three benchmark indices hit record highs in February 2020. They subsequently fell more than 30% from their peaks before recouping some losses. The Nasdaq hit a new record high in June 2020.

7. Volatility heightened. The VIX exceeded 50 for 17 consecutive days in March and April 2020 and hit its peak of 82.7. The Dow's daily price movements did not exceed 5% in either direction during 2019, but did so 12 times in the first half of 2020. The Level 1 market-wide circuit breaker was triggered four times, halting trading for 15 minutes after a 7% drop in the S&P. Risk averse investors sought safe haven assets. The US 10-year Treasury yield once fell to around 0.3%, the lowest level on record. A US dollar liquidity squeeze emerged as institutions and companies appeared to be hoarding cash. The extreme volatility was exacerbated by panic selling across asset classes given accelerating margin calls, liquidations and redemptions.

8. Uncertainties surrounding the epidemic weighed on market sentiment. Most US states imposed containment measures, including lockdowns, travel restrictions and border closures, resulting in significant disruptions to production chains, consumer demand and overall economic activity. Financial conditions tightened abruptly with the onset of the pandemic.

9. Various economic data revealed the widespread negative impact of the epidemic, raising fears of a prolonged economic recession. US GDP contracted 5% in Q1 2020. Jobless claims remained elevated and unemployment surged to the highest level since the Great Depression during the 1930s. Manufacturing activity and retail sales both recorded their sharpest contractions on record. The International Monetary Fund (IMF) and US officials warned of the depth of the economic recession as well as prevailing headwinds impeding an economic recovery. The IMF forecast US GDP to contract 6.6% in 2020.

10. The US accused the Mainland of concealing information about the origin and extent of the epidemic. The US tightened requirements for Mainland companies to list on US stock exchanges and ordered federal retirement savings funds to indefinitely halt plans in investing in Mainland A-shares. After the Mainland announced the enactment of the National Security Law in Hong Kong, the US threatened to impose sanctions on the Mainland and Hong Kong. The Mainland warned of countermeasures. Heightened tensions with the Mainland raised concerns about the implementation of the first phase trade deal and dented hopes for further trade negotiations.

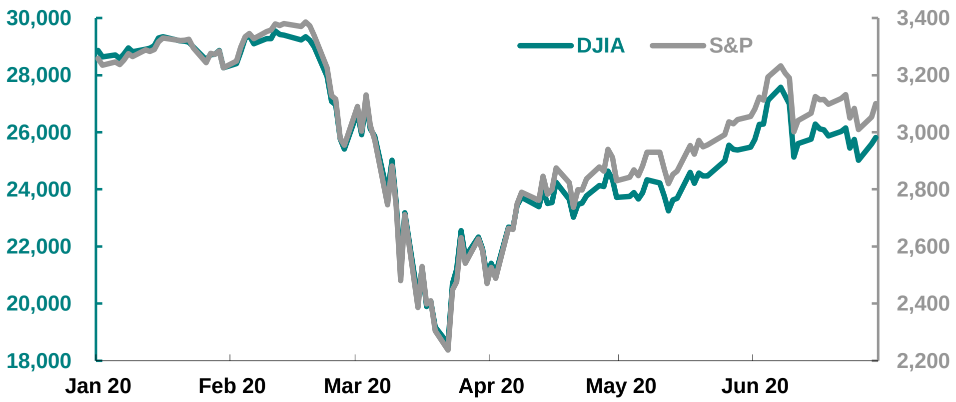
11. Despite production cuts announced by the OPEC, oil prices were volatile following a sharp decline in demand amidst lockdowns. WTI Crude Oil Futures Contract once fell below zero for the first time on record due to concerns about a shortage of storage capacity.

12. Nevertheless, optimism about stimulus measures provided support. In an effort to mitigate the negative impact of the epidemic, the US government passed an emergency fiscal package of US$2 trillion in March 2020, equivalent to about 10% of US GDP and the largest in US history, and proposed another US$1 trillion infrastructure stimulus in June 2020. In addition, the Federal Reserve supported the economy with a range of monetary tools, including interest rate cuts totalling 150 basis points, unlimited purchases of government bonds and emergency loans to money market mutual funds.

13. In addition to stimulus measures, preliminary signs of stabilisation of the epidemic in May 2020 and the gradual reopening of the US economy lent support, and the market recovered from the trough in March 2020. Positive news about the development of a treatment drug and an effective vaccine boosted investor sentiment. However, following the relaxation of containment measures, COVID-19 infections rebounded in June 2020, renewing concerns about an extended epidemic.

14. Technology stocks outperformed, supported by increased demand for online services during the epidemic. Contrary to the decline in the broader market, FAANG stocks[1] rose between 6% and 49%.

Performance of the Dow and S&P during the first half of 2020



Performance of major stock markets (End-June 2020)

		Index level	% change			Daily movements of over 5% in 2020	Price-to-earnings ratios
			2020 H1	2019	2018		
Hong Kong and the Mainland							
Hong Kong	-HSI	24,427.2	-13.3%	+9.1%	-13.6%	2	10.7
	-HSCEI	9,758.6	-12.6%	+10.3%	-13.5%	1	8.1
	-MSCI HK	13,394.4	-12.0%	+6.5%	-10.4%	2	14.1
Mainland	-SHCOMP	2,984.7	-2.1%	+22.3%	-24.6%	1	15.2
	-SZCOMP	1,975.5	+14.7%	+35.9%	-33.2%	1	48.1
US							
US	-Dow	25,812.9	-9.6%	+22.3%	-5.6%	12	19.2
	-Nasdaq	10,058.8	+12.1%	+35.2%	-3.9%	9	41.4
	-S&P	3,100.3	-4.0%	+28.9%	-6.2%	10	22.2
Europe							
UK	-FTSE100	6,169.7	-18.2%	+12.1%	-12.5%	4	22.2
Germany	-DAX	12,310.9	-7.1%	+25.5%	-18.3%	7	23.3
France	-CAC	4,936.0	-17.4%	+26.4%	-11.0%	7	19.8
Italy	-FTSEMIB	19,375.5	-17.6%	+28.3%	-16.1%	6	21.5
Spain	-IBEX	7,231.4	-24.3%	+11.8%	-15.0%	6	27.9

[1] FAANG is an acronym for the five major technology stocks: Facebook, Apple, Amazon, Netflix and Google (Alphabet's subsidiary).

Europe

15. During the first half of 2020, the FTSE, DAX and CAC fell 18.2%, 7.1% and 17.4% respectively. Following rallies in 2019, major European markets once fell over 30% from their end-2019 levels. The FTSE hit its lowest level since 2011, whilst the DAX and CAC once fell to their lowest levels since 2013.

16. Fears over COVID-19 dragged down the markets. The virus spread rapidly in the UK, Spain, Italy and Germany. Many European countries imposed lockdowns and travel restrictions. Worries grew over the negative impact of prolonged lockdowns on economic growth and corporate earnings. Transportation-related and travel stocks fell on concerns about the global disruption of supply chains and lower consumer demand. Oil stocks also fell on weakening demand due to the deteriorating economic outlook.

17. Economic data was disappointing, reflecting the damage of the epidemic. Eurozone GDP fell 3.6% in Q1 2020, the sharpest decline on record. The UK’s Q1 GDP posted the largest decline since 1979, whilst Germany’s saw the sharpest contraction since 2009. Employment and manufacturing data in the Eurozone recorded the largest drop on record. Consumer confidence fell to the lowest level since the global financial crisis. The European Central Bank (ECB) revised its forecast for the Eurozone’s 2020 GDP downwards to a contraction of 8.7%.

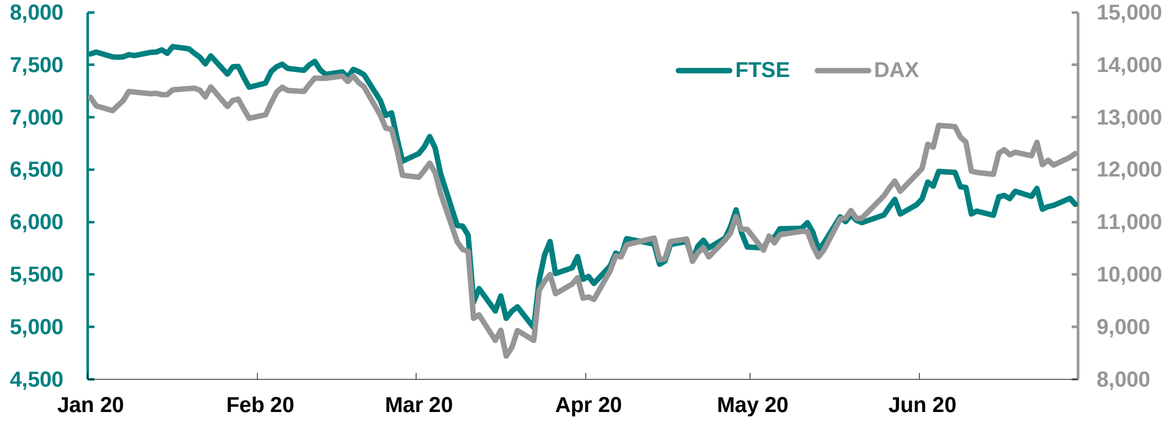
18. News about possible new US tariffs on US$3.1 billion worth of imports from France, Germany, the UK and Spain also paced losses. The disappointing progress of post-Brexit trade talks also weighed on the markets.

19. Nonetheless, large-scale fiscal stimulus and monetary easing by governments and central banks provided support.

    - The ECB launched a pandemic emergency purchase programme of €750 billion of assets in March 2020. In June 2020, it further expanded the programme to €1.35 trillion and extended it until at least until June 2021.
    - The European Union unveiled the details of a larger-than-expected stimulus package of €750 billion to counter the economic impact of the pandemic.
    - The Bank of England expanded its bond-buying programme by £100 billion.

20. The slowing spread of COVID-19 since late March 2020 trimmed some losses and markets recovered given the gradual resumption of business activity in major European economies and optimism about the development of a vaccine.

Performance of FTSE and DAX during the first half of 2020



The Mainland

21. On the Mainland, the SHCOMP fell 2.1% whilst the SZCOMP rose 14.7% during the first half of 2020. The decline in the SHCOMP was moderate compared to overseas markets amidst an early government effort to mitigate the impact of the epidemic. The SZCOMP hit its highest level since November 2017. The average daily trading was RMB758.2 billion, 46% higher than the average of RMB520.5 billion in 2019. Daily trading exceeded RMB1 trillion for 10 consecutive trading days starting in late February 2020.

22. Worries about economic shocks from the pandemic overshadowed the market. There were worries that factory shutdowns might disrupt supply chains whilst travel bans and other containment measures might dampen consumer spending. GDP dropped 6.8% in Q1 2020, the largest contraction on record. Other economic data such as industrial production and retail sales also recorded significant declines. The IMF and credit rating agencies revised their 2020 forecasts for Mainland GDP growth to between 1% and 3%. For the first time in history, the Mainland government did not set a GDP growth target during the annual meeting of the National People's Congress. Amidst caution about the economic outlook, the renminbi weakened.

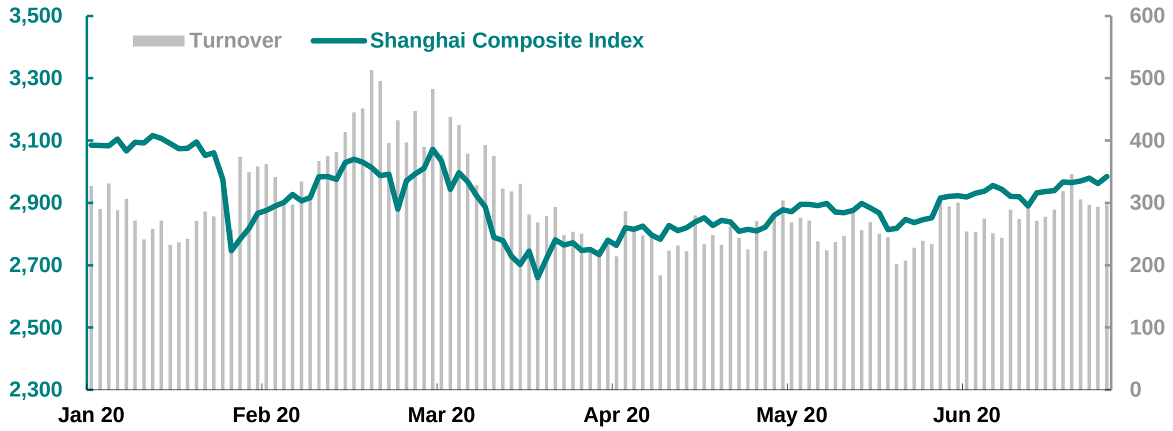
23. Trade and other tensions with the US remained a major factor affecting market performance. Investor sentiment was bullish after the first phase trade deal with the US was signed in January 2020. Conflict later returned as the US accused the Mainland of contributing to the early spread of the epidemic. In May 2020, after the Mainland announced the enactment of the National Security Law in Hong Kong, the US threatened to impose sanctions on the Mainland and Hong Kong. The Mainland warned of countermeasures against foreign interference.

24. Losses were capped on optimism about continued policy stimulus to counter the economic shocks from the epidemic. The People's Bank of China lowered the reserve requirement ratio (RRR) three times for small and medium-sized banks and maintained accommodative interbank liquidity. The Mainland government pledged targeted monetary easing and extra infrastructure spending. Some signs of an economic recovery also lent support. Beginning in March 2020, the official manufacturing PMI stayed above the 50 threshold between contraction and expansion.

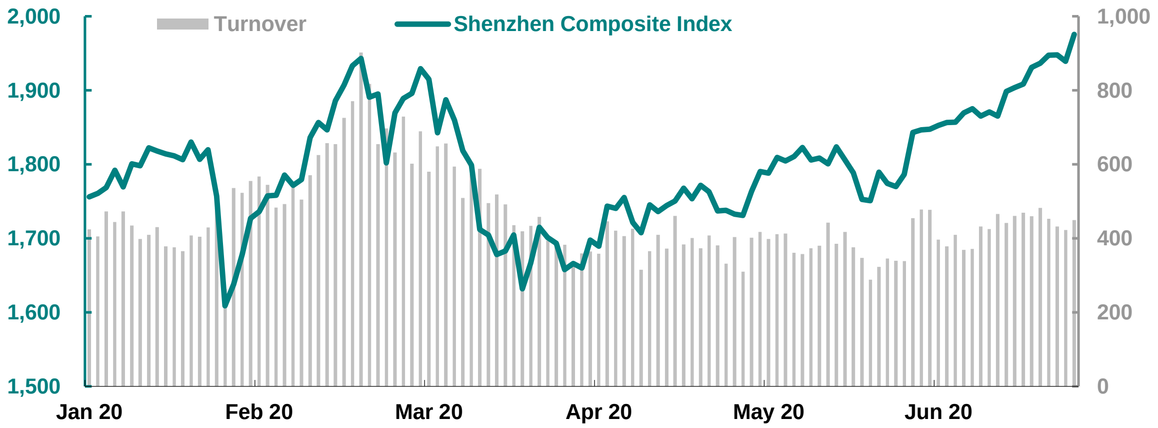
25. The Shenzhen market outperformed. Technology stocks advanced amidst accelerating progress in the registration-based IPO reform on the ChiNext market. The ChiNext Index hit its highest level since January 2016. The Shenzhen market was also lifted by the

launch of the Wealth Management Connect pilot scheme in the Guangdong-Hong Kong-Macao Greater Bay Area.

SHCOMP and market turnover (RMB billion) during the first half of 2020



SZCOMP and market turnover (RMB billion) during the first half of 2020



Hong Kong

26. The Hong Kong market fell in the first half of 2020, with the HSI and the HSCEI dropping 13.3% and 12.6% respectively.

27. Local political uncertainties heightened during the period. The Mainland announced the enactment of the National Security Law in Hong Kong. There were worries about the possible impact on investor confidence amidst reactions by the local community and foreign governments. This would cause uncertainties about the future development of the Hong Kong financial markets. The US began to revoke the special trade treatment for Hong Kong, which could mean an eventual convergence with the tariffs applied to the Mainland. The US also imposed sanctions on Mainland individuals and companies and further changes in US policy toward Hong Kong were possible. This raised concerns about Hong Kong's role as a global financial hub. Another uncertainty was the potential for revived social unrest to affect the local economy.

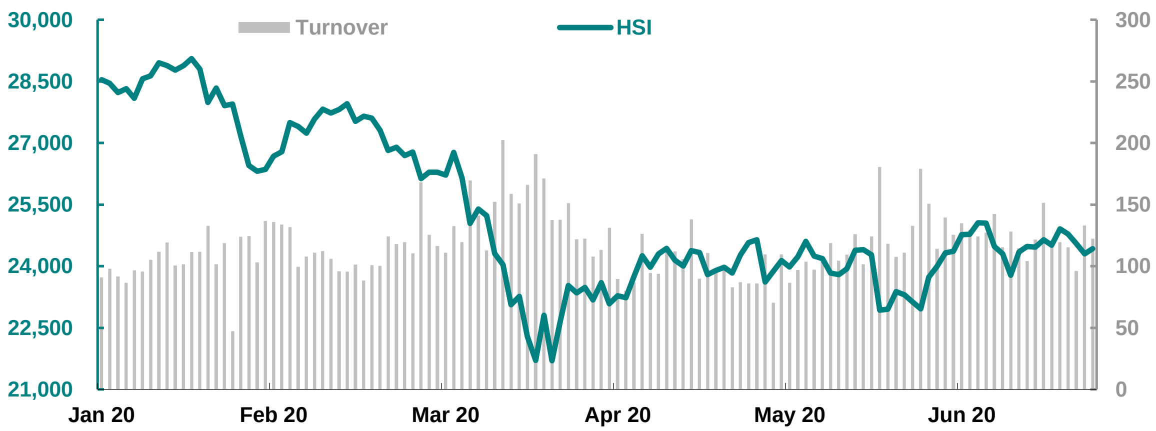
28. There were also concerns about the uncertain economic outlook. GDP contracted 8.9% in Q1 2020, the steepest decline on record. The unemployment rate hit a 15-year high. In addition, rating agencies downgraded Hong Kong's rating and some projected that GDP might even contract 5% in 2020.

29. Apart from these factors, the decline in the Hong Kong market was also underpinned by higher volatility in overseas markets and macro external factors. These included:

- Rapid spread of COVID-19 – The virus has spread across the world and the World Health Organisation (WHO) declared the outbreak a global pandemic. Lockdown measures were imposed around the globe, affecting labour markets, consumer demand and economic activity. Corporate earnings were affected by the shutdown of businesses and economies as well as by disruptions in supply chains and declining consumer spending. Major credit rating agencies expected a deep recession and estimated that global GDP might contract around 3 to 5% in 2020.
- Tensions between the Mainland and the US – Conflicts between the two countries over the epidemic escalated and protectionist measures were adopted in the trade, technology and financial sectors. Amidst uncertainties about the implementation of the first phase trade deal, the renminbi faced downward pressure, potentially eroding the earnings of Mainland stocks in Hong Kong dollar terms. There were concerns that a possible trade war would worsen the Mainland's economic and business outlook. As Mainland stocks account for a significant share of the Hong Kong market (over 70% of market capitalisation), there were concerns that market performance and valuations would be adversely affected.
- Oil price volatility – Oil prices tumbled amidst concerns about excess supply and a shortage of storage capacity. Falling prices worsened the financial profiles of oil companies with heavy debt exposures. A related concern was that the stocks of banks with exposures to oil companies might be affected as well.

30. The price-to-earnings ratio of the HSI was around 11 times at the end of June 2020. Trading was active amidst higher market volatility. Inflows through Stock Connect southbound (SB) trading provided some support to the market.

HSI and market turnover ($ billion[2]) during the first half of 2020



Risks and uncertainties

31. Looking ahead, the Hong Kong market may face uncertainties, including:

- tensions between the Mainland and the US – Tensions between the Mainland and the US revived and heightened due to conflicts over COVID-19 and the enactment of the National Security Law. Investors were concerned that the first phase trade deal might be derailed. In addition, the conflict between the two countries over the technology industry remains unresolved. There was news that the US might restrict sales of US technology components to Mainland companies. There are also concerns that tensions may escalate and likely affect investor sentiment in the Hong Kong market.
- the enactment of the National Security Law and local political unrest – Australia, Canada and the UK issued a joint statement expressing concerns about the National Security Law in Hong Kong. The Mainland warned of possible countermeasures against foreign interference. The local political unrest which started in the middle of 2019 revived. Investor confidence remains fragile and there are growing concerns about the impact on the local economy including on consumer and tourist spending.
- further volatility in the US market – Although the US market has at one point corrected over 30% from record high, valuation concerns continue to weigh on the market due to expected declines in earnings. The price-to-earnings ratio of the S&P remains high at around 22 times and there are concerns about the sustainability of the rally. The US market has rebounded significantly from the trough in March 2020, but the risk of another correction increases. In the event of a sharp downturn, the Hong Kong market would also be affected.
- concerns about the Mainland's economic outlook – During the first half of 2020, the decline in the Mainland market has been relatively moderate amidst optimism over supportive measures from the government to mitigate the negative impact of the epidemic. This, together with the strong SB inflows, has been an important factor supporting the Hong Kong market. However, if the Mainland economy weakens, it may affect corporate earnings, renminbi movements as well as SB inflows. The performance of the Hong Kong market may also be affected.

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[2] Unless otherwise stated, $ denotes the Hong Kong dollar.

Major statistics for the Hong Kong securities market

Trading activity

32. Trading in the local stock market was active during the first half of 2020. Amidst higher market volatility, the average daily trading rose to $117.5 billion, 35% higher than the $87.2 billion in 2019.

33. Mainland stocks (including H-shares, red chips and privately-owned enterprises) remained the most actively traded. Their share of total market turnover was 64% during the first half of 2020 (58% in 2019), whilst that of HSI stocks (excluding Mainland stocks) was about 11% (11% in 2019).

The average daily turnover ($ billion)

	H1 2020		2019		% change over 2019
HSI (ex Mainland stocks)	12.6	(11%)	9.7	(11%)	+29.9%
Mainland stocks	75.3	(64%)	50.1	(58%)	+50.3%
H-shares	*23.0*	*(20%)*	*20.3*	*(23%)*	*+13.3%*
Red chips	*9.7*	*(8%)*	*7.1*	*(8%)*	*+36.6%*
Privately-owned enterprises	*42.6*	*(36%)*	*22.7*	*(26%)*	*+87.7%*
Derivative warrants (including inline warrants)	7.9	(7%)	9.8	(11%)	-19.4%
Callable bull/bear contracts	9.6	(8%)	8.1	(9%)	+18.5%
Exchange-traded funds and leveraged and inverse products	7.1	(6%)	4.9	(6%)	+44.9%
Others	5.0	(4%)	4.6	(5%)	+8.7%
Market total	**117.5**	**(100%)**	**87.2**	**(100%)**	**+34.7%**

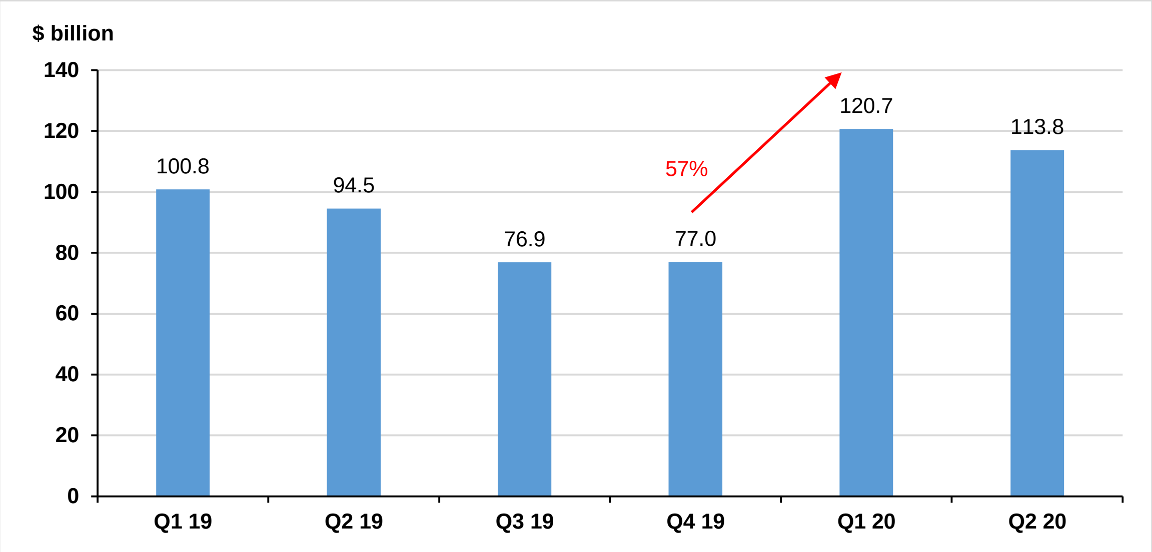
Remark: Percentages in parenthesis denote market share.

Recent increase in trading in the Hong Kong market

Trading in the Hong Kong market became more active in the first half of 2020. The average daily turnover amounted to $120.7 billion in Q1 2020 and $113.8 billion in Q2 2020. These figures were

- 57% and 48% higher than the average of $77.0 billion during Q4 2019; and
- 20% higher than the averages during corresponding quarters in 2019.

The average daily turnover of the Hong Kong market



Possible reasons

Volatility

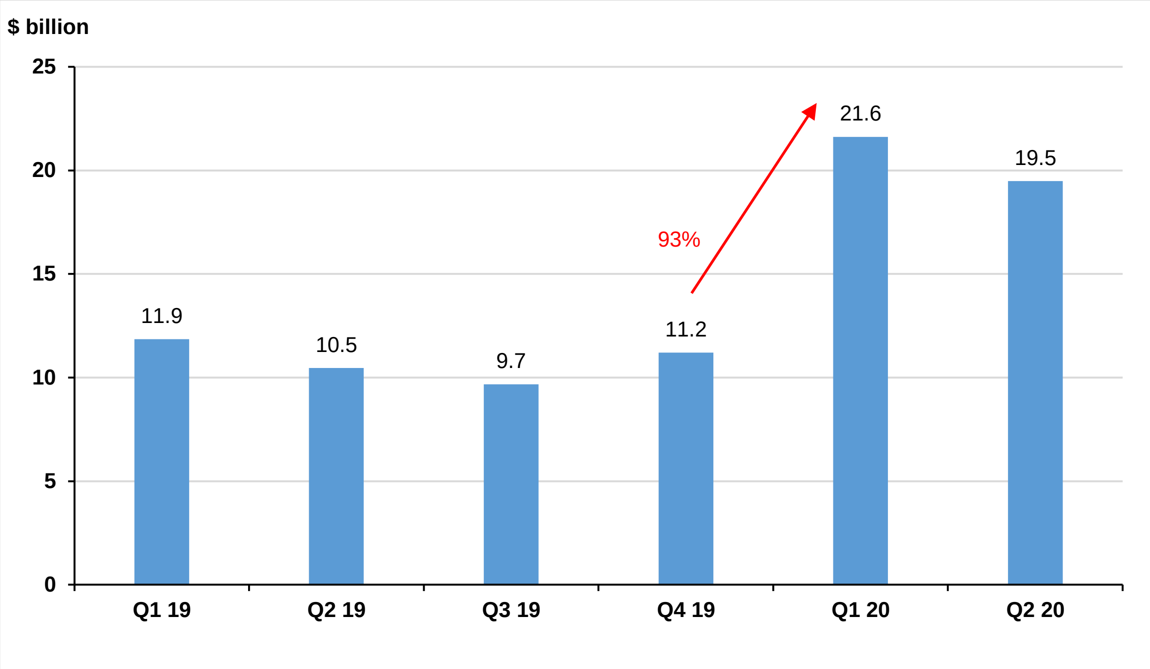
The increase in trading was associated with higher volatility. The intra-month volatility of the HSI averaged nearly 2,800 points during the first half of 2020, compared to around 1,900 points in Q4 2019. Amongst other factors, this was the result of:

- Mainland-US tensions – the HSI once rose above the 29,000 level due to initial optimism about the first phase trade agreement between the Mainland and the US. Later, the market corrected as conflicts between the two countries increased over the epidemic outbreak.
- Epidemic outbreak – the epidemic spread across the globe and its duration and impact on the outlook for the economy remained unknown. Volatility in major overseas markets rose to unprecedented levels.

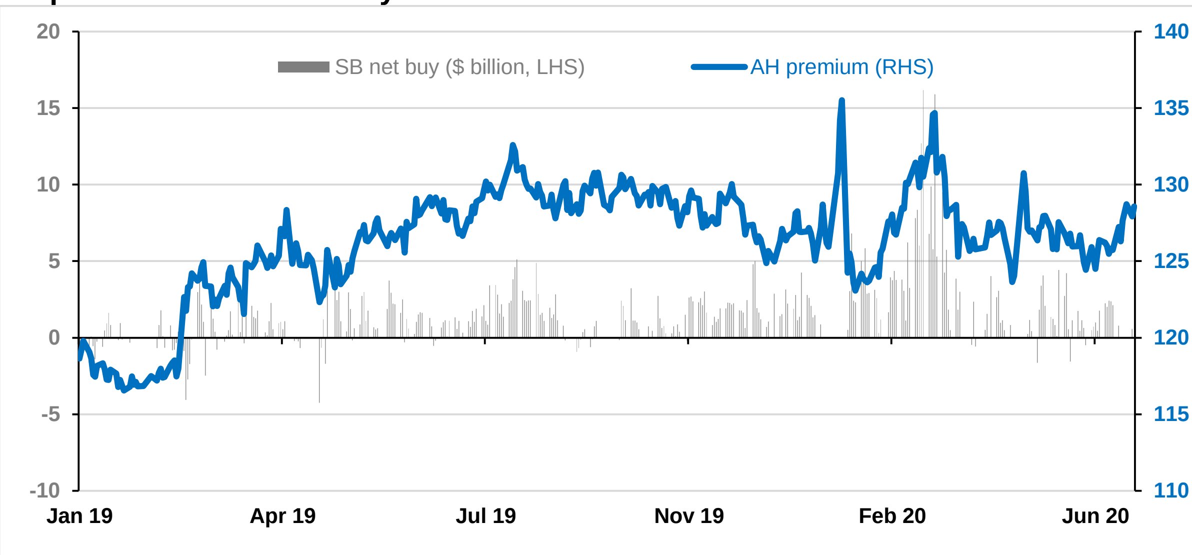
SB trading

The average daily SB trading (including buy and sell trades) amounted to $21.6 billion and $19.5 billion during Q1 and Q2 2020 respectively. Both figures were more than 70% higher than the $11.2 billion recorded in Q4 2019. Among other reasons, this was due to a widening AH premium as the Hang Seng AH Premium Index once rose to a recent high of 136 as at end-January 2020 and remained elevated at 129 as at end-June 2020. A wide AH premium implies a lower valuation of H-shares, thus attracting SB inflows. During the first half of 2020, SB net buy rose to $300.0 billion, a 20% increase over the amount in all of 2019.

The average daily SB trading (including buy and sell trades)



AH premium and SB net buy



Technology stocks

The average daily trading of major technology stocks was about $23 billion in both Q1 and Q2 2020.

- This was about 130% higher than the $10 billion in Q4 2019 (before Alibaba was listed in Hong Kong on 26 November 2019).
- The increase of some $13 billion was equivalent to more than 30% of the increase in trading of the Hong Kong market compared to the level in Q4 2019.
- The active trading in technology stocks seemed to be in line with the international trend. Compared to Q4 2019, trading of major technology stocks in the US increased over 130% in Q1 2020 and over 110% in Q2 2020.

Stock Connect

34. During the first half of 2020,

- the average daily northbound (NB) trading (including buy and sell trades) was RMB74.3 billion, or 4.9% of trading in the Mainland market (RMB41.7 billion or 4.0% of market trading in 2019); and
- the average daily SB trading (including buy and sell trades) was $20.6 billion, or 8.8% of trading in the Hong Kong market ($10.8 billion or 6.2% of market trading in 2019).

35. As at end-June 2020, the cumulative net buy was:

- RMB1,111.6 billion via NB trading; and
- RMB1,192.0 billion via SB trading.

Short selling activities

36. During the first half of 2020, short selling in Hong Kong was higher in absolute terms, but remained relatively stable as a percentage of total market turnover. The average daily short selling amounted to $17.0 billion or 14.5% of total market turnover in the first half of 2020 ($12.6 billion or 14.5% in 2019). The increase in short selling was partly due to increased hedging needs amidst higher market volatility.

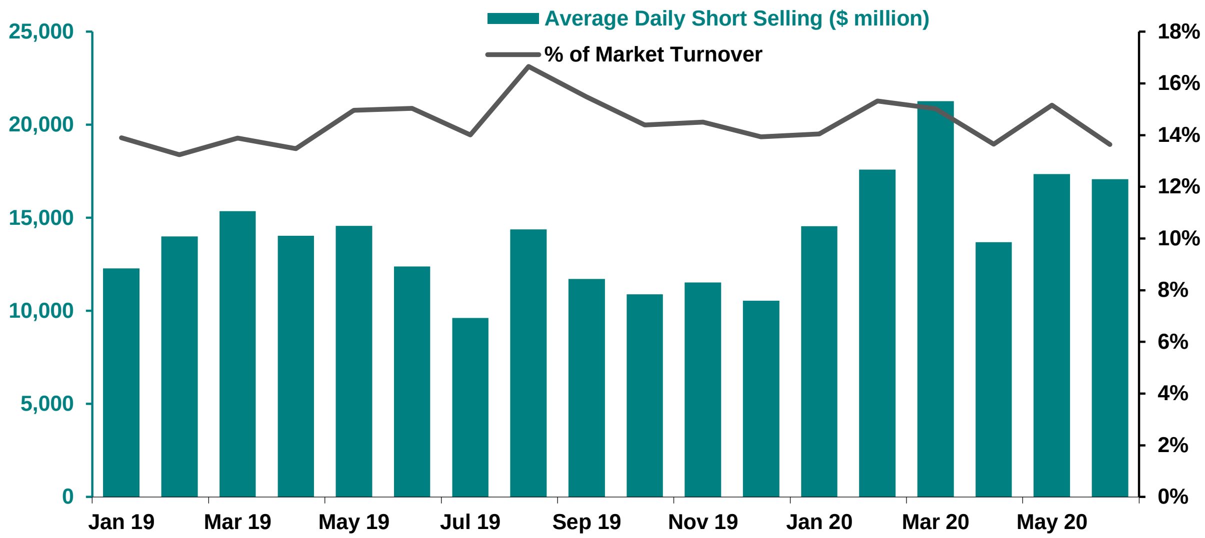
37. Despite the increase in short selling, the market value of reportable short positions rose modestly. Based on data submitted to the SFC, as at end-June 2020, aggregated short positions amounted to $466.7 billion, which was around 1.23% of total market capitalisation. This compared to $456.8 billion and 1.20% as at end-2019.

Short selling ratio remained relatively stable during the first half of 2020

Amidst higher market volatility in the first half of 2020, short selling ratio in Hong Kong rose to high levels at times. However, it subsequently dropped as the market situation stabilised. Overall, the short selling ratio remained relatively stable during the whole period.

- Since February 2020, short selling became more active due to worries about the economic outlook amidst the spread of COVID-19 around the globe. The market was very volatile, with the HSI Volatility Index once rising to a more than 11-year high of 64.8 in March 2020. During February and March 2020, the short selling ratio rose to 15.1%.
- On 29 May 2020, the short selling ratio hit a record high of 20.6%. Investor sentiment was affected by the US announcement about sanctions on the Mainland and Hong Kong after the Mainland unveiled the National Security Law in Hong Kong.
- Nevertheless, in June 2020, the market stabilised and the short selling ratio fell to 13.6%.
- During the first half of 2020, the short selling ratio remained relatively stable at 14.5% (14.5% in 2019).
- In addition, there was no concentration of short selling activities in any particular stocks or in any brokers.

It should also be noted that 37% of the short selling turnover in the first half of 2020 was associated with market-making related activities. As activities related to market making tend to be market neutral, they do not have a significant systemic impact on the market as a whole.



Despite the increase in short selling, aggregated short positions increased modestly to 1.23% as at 26 June 2020 (1.20% as at end-2019). This remained small compared with overseas markets (~1.4% in Australia and ~2.0% in the US (NYSE)). The increases in short positions were spread over a large number of stocks. In addition, short positions still accounted for small shares of the market capitalisations of major stocks. There was no build up of positions.

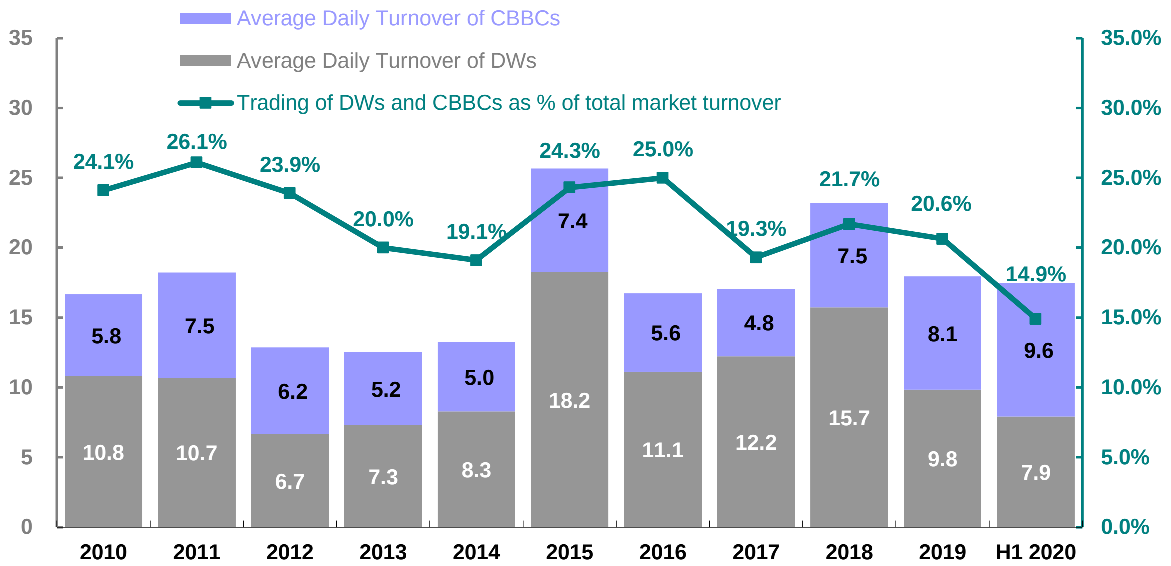
Derivative warrants (DWs)[3] and callable bull/bear contracts (CBBCs)

38. During the first half of 2020, the trading of DWs decreased both in absolute terms and as a percentage of total market turnover. The average daily turnover of DWs was $7.9 billion (6.7% of total market turnover), compared with $9.8 billion (11.3% of total market turnover) in 2019.

39. During the first half of 2020, the trading of CBBCs increased in absolute terms but decreased as a percentage of total market turnover. The average daily turnover of CBBCs amounted to $9.6 billion (8.2% of total market turnover), compared with $8.1 billion (9.3% of total market turnover) in 2019.

[3] Derivative warrants include standard derivative warrants and inline warrants.

Turnover of DWs and CBBCs ($ billion)



Exchange-traded derivatives

40. During the first half of 2020, the trading of exchange-traded derivatives was 10% higher than the 2019 level.

- Trading of all futures products rose 8.5%. Amongst all futures products, HSI futures and HSCEI futures were the most actively traded contracts, accounting for 36.5% and 31.2% of all futures trading respectively. Trading in HSI futures fell 10.6% from 2019, whilst that of HSCEI futures contracts rose 14.7%, partly due to stronger demand for hedging Mainland-related risk.
- Trading of all options products rose 11.2%. Stock options remained the most actively traded options products, accounting for 75.5% of all options trading. Trading of stock options rose 13.5% from 2019.

The average daily trading of derivatives traded on HKEX by product type (contracts)

		H1 2020	2019	2018
Futures	HSI Futures	186,414	208,609	234,424
	Mini-HSI Futures	126,717	90,124	100,262
	HSCEI Futures	159,238	138,826	152,241
	Mini-HSCEI Futures	20,715	14,985	22,568
	Stock Futures	4,198	3,729	3,508
	RMB Currency Futures (USD/CNH)	7,116	7,882	7,135
	Other futures products	6,007	6,410	3,631
	Total futures	**510,405**	**470,565**	**523,769**
Options	HSI Options	46,119	50,678	51,693
	Mini-HSI Options	14,231	13,591	10,005
	HSCEI Options	94,509	87,656	98,610
	Mini-HSCEI Options	2,089	2,368	2,372
	Stock Options	501,864	442,333	517,395
	Other options products	6,015	1,450	152
	Total options	**664,827**	**598,076**	**680,227**
Total futures and options		**1,175,231**	**1,068,641**	**1,203,996**

Trading of index futures hit a record high during after-hours trading sessions (AHT) amidst higher volatility on overseas markets

HSI futures and HSCEI futures are popular tools for investors to hedge against market volatility. Their trading during AHT enables investors to adjust positions and take timely risk-management action in response to major news and events in the US and European time zones.

In Q1 2020, the combined average daily trading volume of HSI and HSCEI futures during AHT increased 85% to around 72,000 contracts. On average, AHT of these two products accounted for 18% of total trading for the entire day in Q1 2020, compared to 13% in Q4 2019.

The combined average daily trading volume of HSI and HSCEI futures during AHT rose to over 102,000 contracts in March 2020. This was a record monthly high, 37% higher than the previous record of around 75,000 contracts in October 2018.

Amongst other factors, the sharp increase in AHT of HSI and HSCEI futures was attributable to higher volatility in the US market. The surge in volatility in the US market in March 2020 was unprecedented.

- The Level 1 market-wide circuit breaker was triggered for the first time since 1997, halting trading four times in March 2020.
- The Dow recorded daily movements of more than 5% for 10 trading days in March 2020 (no trading day in 2019 had daily price movements exceeding 5%) and the VIX hit a record high of 82.7 on 16 March 2020.
- On 16 March 2020, the Dow dropped nearly 3,000 points or 12.9%, the largest percentage decline since the 1987 stock market crash.
- On 24 March 2020, the Dow rose 11.4%, the largest percentage gain since 1933.

Combined average daily trading of HSI and HSCEI futures for the entire day also increased to around 393,000 contracts during Q1 2020. This amount was:

- 29% higher than the average of around 305,000 contracts during Q4 2019; and
- 6% higher than the average of around 370,000 contracts in Q1 2019.

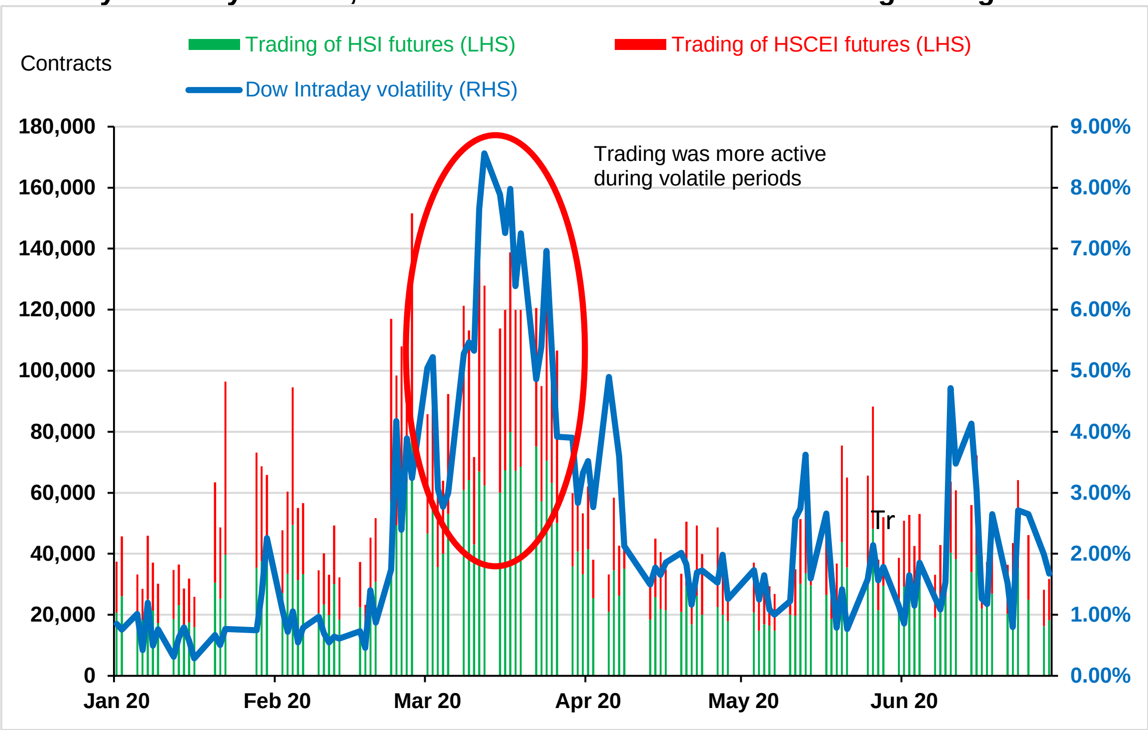
The active trading of HSI and HSCEI futures seemed to be associated with an increase in stock trading. During Q1 2020, average daily turnover for the stock market amounted to $120.7 billion. This amount was:

- 57% higher than the average of $77.0 billion during Q4 2019; and
- 20% higher than the average of $100.8 billion in Q1 2019.

As market volatility eased somewhat in Q2 2020 (when the Dow moved by more than 5% on only two trading days), trading of the stock and derivative markets decreased. Compared to Q1 2020:

- average daily stock market turnover decreased 6%;
- the combined average daily trading of HSI and HSCEI futures decreased 25%; and
- the combined average daily trading of HSI and HSCEI futures during AHT decreased 37%.

Intraday volatility of Dow, HSI futures and HSCEI futures trading during AHT



The average daily trading of the stock market, HSI futures and HSCEI futures