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Research Paper No. 71: Half-yearly Review of the Global and Local Securities Markets (Featuring Short Selling and Derivatives Ecosystem for the Technology Sector)

29 July 2022

Executive Summary

1. During the first half of 2022, global stock markets were volatile amid uncertainties about interest rate hikes and balance sheet reductions by major central banks to combat inflation. Geopolitical tensions in Ukraine and sanctions on Russia also undermined market performance. In addition, a stronger US dollar weighed on Asian currencies and capital flows to stock markets in the region.

2. Major indices in the US retreated, with the Dow, Nasdaq and S&P down 15.3%, 29.5% and 20.6% respectively. All three indices recorded the largest half-yearly declines since 2008. In Europe, the FTSE, DAX and CAC fell 2.9%, 19.5% and 17.2% respectively. Persistent inflationary pressures prompted major central banks to pursue more aggressive monetary tightening. Worries about a slowdown in global economic growth and profit warnings by corporates paced losses. In the Mainland, the SHCOMP and the SZCOMP fell 6.6% and 12.1% respectively.

3. The Hong Kong market fell amid the global market correction, with the HSI, HSCEI and the Hang Seng TECH Index dropping 6.6%, 6.9% and 14.1% respectively. Rate-sensitive technology stocks led losses owing to heightening worries about accelerating interest rate hikes in the US. Given the substantial market shares and heavy weighting of technology stocks in major benchmark indices, their share price declines dragged on the Hong Kong market. Geopolitical tensions between Russia and Ukraine further weighed on the market. While the direct impact was limited because of its relatively small exposure to Russia, the Hong Kong market was affected by increased volatility in major overseas markets amid investors' growing risk aversion. Nevertheless, hopes for the Central Government's policy measures to boost the economy trimmed some losses.

Performance of stock markets

Overseas markets

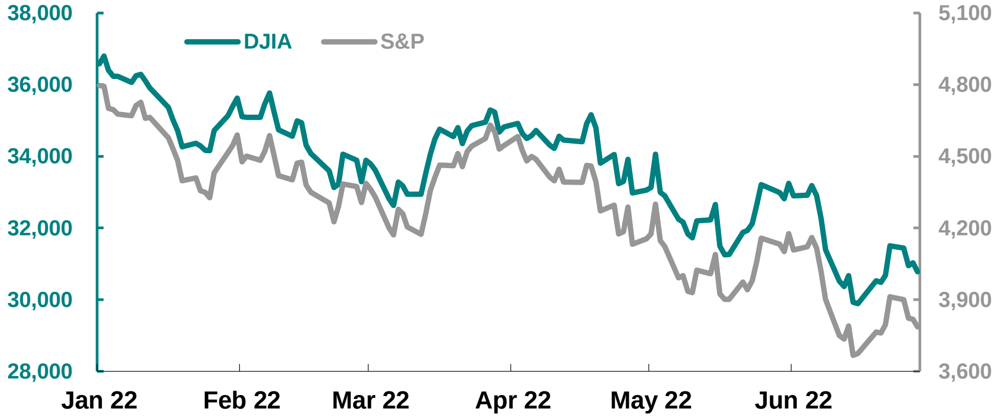
4. Major US indices retreated in the first half of 2022, with the Dow, Nasdaq and S&P falling 15.3%, 29.5% and 20.6% respectively—their largest half-yearly declines since 2008. In Europe, the FTSE, DAX and CAC fell 2.9%, 19.5% and 17.2% respectively.

5. Global stock markets were volatile as inflationary pressures grew, heightening worries about accelerating interest rate hikes by central banks. Rate-sensitive technology stocks in the US underperformed. US and UK inflation rates rose to 40-year highs and Eurozone consumer prices posted successive record increases. The Fed raised interest rates by 25 basis points (bps) in March 2022, 50bps in May and 75bps in June (the biggest increase since 1994 and larger than the market expected). The Fed also began reducing its balance sheet in June. The European Central Bank reaffirmed aggressive monetary tightening and announced to conclude its asset purchase programme in the third quarter of this year.

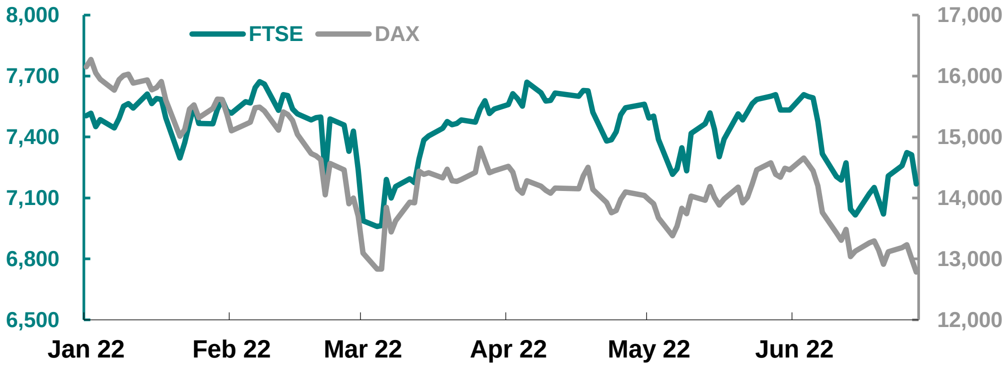
6. Geopolitical tensions in Ukraine heightened as the military conflict lingered longer than initially expected. International sanctions on Russia also seemed wider in scope and more severe than anticipated. These factors affected crude imports from Russia and added to worries about disruptions in global supply chains and elevated commodity prices.

7. Meanwhile, recession fears grew. The US GDP unexpectedly contracted 1.6% in the first quarter of 2022. In April, the International Monetary Fund lowered its global GDP growth forecast for this year by nearly a full percentage point to 3.6%. Later, the World Bank warned about the risks of stagflation and a global economic slowdown. Profit warnings issued by some US retail stocks and European financial stocks further weighed on the markets.

Performance of the Dow and S&P during the first half of 2022



Performance of FTSE and DAX during the first half of 2022



Performance of major stock markets

			% change		
		Index level	**2022 H1**	**2021**	**2020**
Hong Kong and the Mainland					
Hong Kong	-HSI	21,859.8	-6.6%	-14.1%	-3.4%
	-HSCEI	7,666.9	-6.9%	-23.3%	-3.8%
	-HS TECH	4,870.3	-14.1%	-32.7%	+78.7%
Mainland	-SHCOMP	3,398.6	-6.6%	+4.8%	+13.9%
	-SZCOMP	2,224.2	-12.1%	+8.6%	+35.2%
US					
US	-Dow	30,775.4	-15.3%	+18.7%	+7.2%
	-Nasdaq	11,028.7	-29.5%	+21.4%	+43.6%
	-S&P	3,785.4	-20.6%	+26.9%	+16.3%
Europe					
UK	-FTSE100	7,169.3	-2.9%	+14.3%	-14.3%
Germany	-DAX	12,783.8	-19.5%	+15.8%	+3.5%
France	-CAC	5,922.9	-17.2%	+28.9%	-7.1%

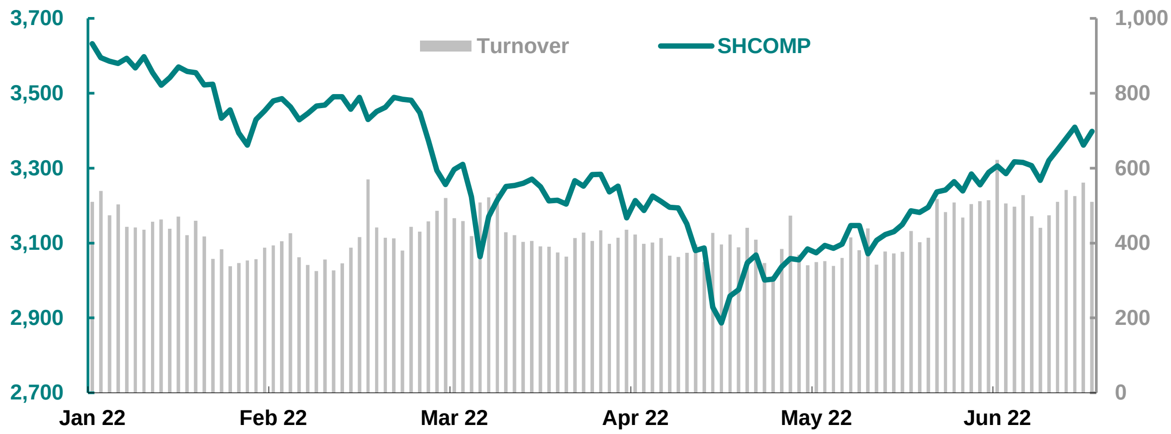
The Mainland

8. During the first half of 2022, the SHCOMP and the SZCOMP fell 6.6% and 12.1% respectively. Both indices hit their lowest levels since May 2020. The average daily trading in the Mainland market was RMB975 billion, 7.8% lower than the average of RMB1,058 billion in 2021.

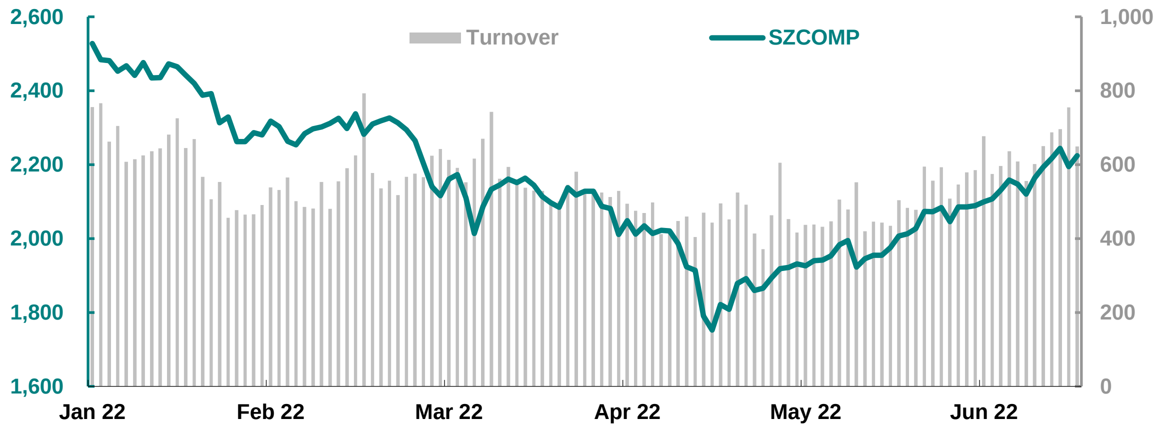
9. The spread of new COVID-19 variants raised concerns about supply-chain disruptions and their impact on the pace of the Mainland's economic recovery. Its GDP growth slowed from 8.1% in 2021 to 4.8% in the first quarter of the year. The official GDP growth target for 2022 was around 5.5%. In addition, a stronger US dollar weighed on Asian currencies and capital flows to stock markets in the region. The RMB hit its lowest level since October 2020 and depreciated 5% during the first half of 2022. There were also concerns about the credit situations of some property developers.

10. Nevertheless, optimism about supportive economic policy offset some losses as the Central Government unveiled details of a stimulus package to revive the economy. Measures included tax cuts and infrastructure investment. In addition, the People's Bank of China reduced the reserve requirement ratio by 25bps.

SHCOMP performance and market turnover (RMB billion) during the first half of 2022



SZCOMP performance and market turnover (RMB billion) during the first half of 2022



Hong Kong

<u>Market performance</u>

11. The Hong Kong market fell during the first half of 2022. The HSI, HSCEI and the Hang Seng TECH index dropped 6.6%, 6.9% and 14.1% respectively. The market was volatile, particularly in March, when the HSI and the HSCEI hit their six- and 13-year lows, respectively, and the Hang Seng TECH Index dropped to a record low at one point.

12. The market decline was largely due to corrections in rate-sensitive technology stocks in light of the losses of their US peers. There were growing worries about the Fed's aggressive interest rate hikes and balance sheet reduction. Investor sentiment was also affected by the delisting risk of some Mainland American depositary receipts (ADRs) in the US as well as the policy development of the technology sector. Technology stocks had a heavy weighting in major benchmark indices, and thus their share-price declines posed a significant impact on the Hong Kong market.

13. Geopolitical tensions between Russia and Ukraine also weighed on the market. The direct impact was limited because of its relatively small exposure to Russia, but the Hong Kong market was affected by the corrections in major overseas markets amid investors' increasing risk aversion. Furthermore, there were worries that sanctions on Russia and supply-chain disruptions might affect the global economic outlook.

14. Nevertheless, optimism about more supportive fiscal and monetary policies by the Central Government to boost the economy trimmed some losses.

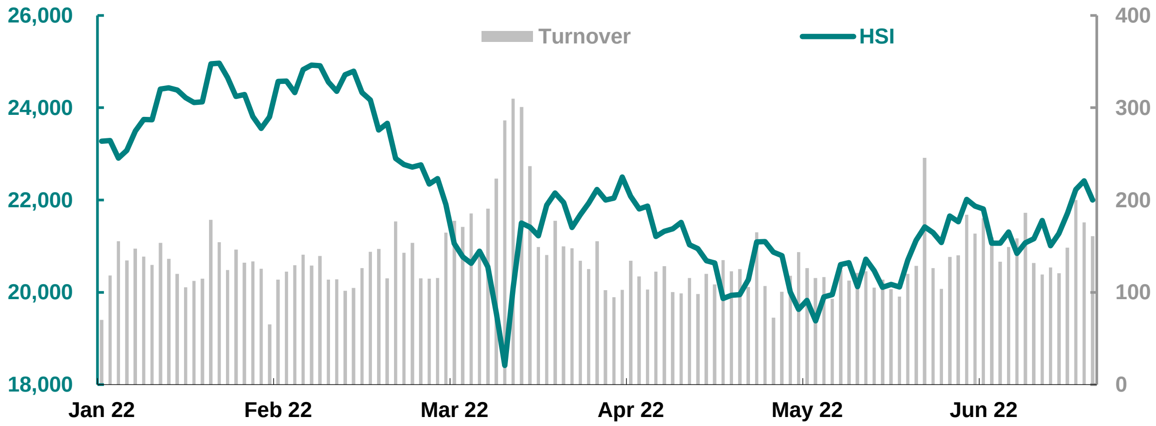
15. Trading in the local stock market declined during the first half of 2022. The average daily trading fell to $138.3 billion[1], 17% lower than the $166.7 billion in 2021. However, short selling increased amid increased market volatility.

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

Market outlook and risks

16. Looking ahead, monetary policies may continue to affect global market performance as major central banks attempt to strike a balance between taming inflationary pressures and supporting the fragile economic recovery. Geopolitical tensions in Ukraine and sanctions on Russia will also weigh on investor sentiment. In addition, the pandemic situation and the development of Sino-US relations may affect the market outlook.

HSI performance and market turnover ($ billion) during the first half of 2022



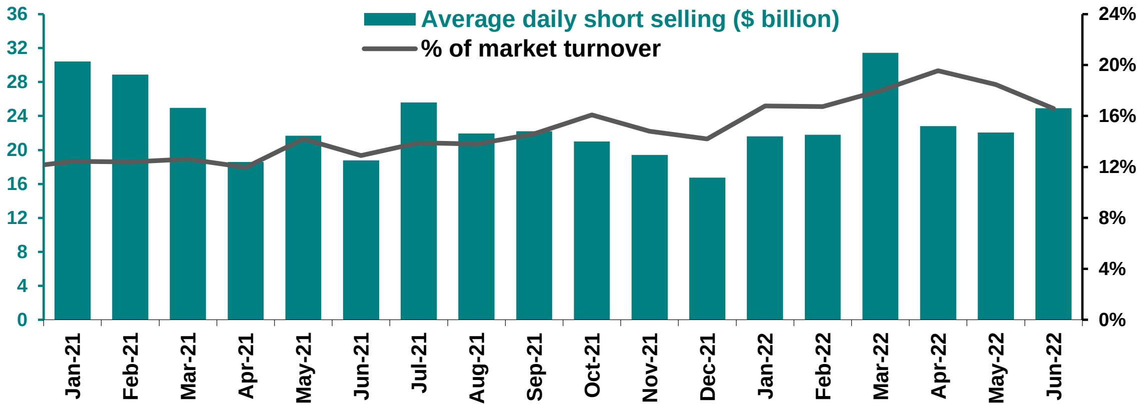
Short selling activity and aggregated short positions in Hong Kong

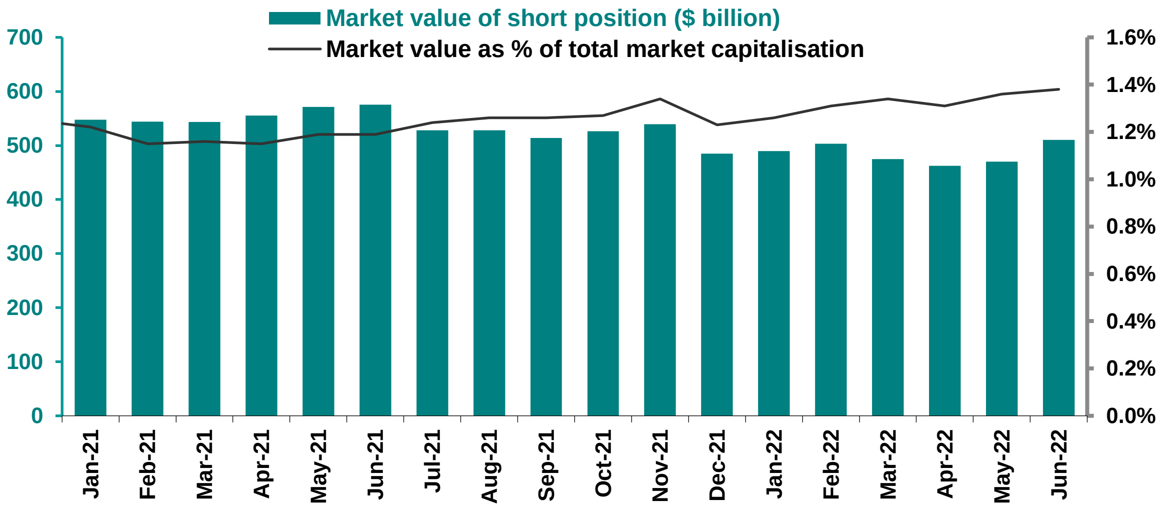
At times of high volatility, there is usually increased investor demand for short selling to manage the risk exposure of investment portfolios. During the first half of 2022, whilst short selling once rose to high levels, aggregated short positions as a percentage of market capitalisation only increased slightly. The average daily short selling increased to $24.3 billion and the short selling ratio rose to 17.6% (compared to $21.1 billion and 14.5% in the second half of 2021).

- Since March 2022, the short selling ratio has increased:
  - During March-May 2022, the short selling ratio rose to 18.5% from 16.8% during January-February.
  - On 28 April, the short selling ratio hit a record high of 22.5%.
  - In June, the Hong Kong market stabilised and the short selling ratio fell to 16.6%.
- The short selling ratio was relatively high when compared with previous volatile periods:
  - 15.2% during May 2020 when investor sentiment was affected by COVID-19 concerns; and
  - 16.7% in August 2019 amid Sino-US trade tensions.
- Recent active short selling was due in part to the global market correction.
- Major exchange-traded funds (ETFs) and technology stocks also contributed to the recent increase in short selling activities. Nevertheless, the short positions held by market participants for these securities were generally stable. No build-ups of large

short positions were identified. For ETFs, most short positions seemed to be closed out within a short time horizon and did not lead to a significant systemic impact on the whole market.

- Moreover, there was no concentration of short selling activities in any particular stocks or brokers.





Despite the increase in short selling, aggregated short positions rose modestly to 1.38% of the total market capitalisation as of the end of June 2022 (compared to 1.23% as of the end of 2021). The increases in short positions spread across a large number of stocks. In addition, the short positions accounted for only a small share of the market capitalisation of major stocks.

Activity in the Hong Kong securities market

Stock Connect

17. Stock Connect was active during the first half of 2022:

- the average daily northbound (NB) trading (including buy and sell trades) was RMB103.9 billion, or 5.3% of trading in the Mainland market (RMB120.1 billion, or 5.7% of market trading in 2021); and
- the average daily southbound (SB) trading (including buy and sell trades) was $33.2 billion, or 12% of trading in the Hong Kong market ($41.7 billion, or 12.5% of market trading in 2021).

18. During the period, the net buy was:

- RMB71.8 billion via NB trading (RMB432.2 billion in 2021); and
- RMB175 billion via SB trading (RMB382.3 billion in 2021).

Exchange-traded derivatives

19. During the first half of 2022, the average daily trading of exchange-traded derivatives was 8.7% higher year-on-year.

- Trading of futures products rose 39.6%.
  - HSI futures and HSCEI futures were the most actively traded contracts, accounting for 26.3% and 30.3% of total futures trading respectively. Trading in HSI and HSCEI futures rose 7.9% and 48.6% respectively year-on-year.
  - Trading of Hang Seng TECH Index Futures was more than seven times higher than the first half of 2021, partly because of increasing hedging needs amid more active trading of technology stocks.
  - The MSCI China A 50 Connect Index Futures, which provide an effective hedging tool for investors to manage risks in the A-share market, were also actively traded. Their average daily trading was 71.9% higher than that in 2021[2].
- Trading of options products fell 8.1%. Stock options remained the most active, accounting for 84.1% of total trading of options products. Trading of stock options fell 12.1% from the first half of 2021.

[2] The MSCI China A 50 Connect Index Futures were launched on 18 October 2021.

Derivatives ecosystem for the technology sector

Launched in July 2020, the Hang Seng TECH Index covers the 30 largest technology companies listed in Hong Kong. It has become a representative benchmark index tracking the increasingly important Mainland technology sector.

- Compared with levels in 2019, market capitalisation and trading of these 30 technology stocks rose 23% and 234% respectively, whilst the HSI declined 22% and the Hang Seng TECH Index rose 3%.
- These technology stocks now account for 30% of the total market capitalisation and 27% of the total market trading.

Alongside the growing presence of the technology sector in the stock market, a derivatives ecosystem has been developed for the technology sector.

- Futures and options contracts for the index began trading in November 2020 and January 2021, respectively.
- ETFs, leveraged and inverse products and structured products including derivatives warrants and callable bull/bear contracts for the index were also launched.
- These products helped meet the market's need for an exposure management tool covering the technology sector.

Hang Seng TECH Index Futures recorded strong growth recently.

- In terms of notional value, trading hit a record high of $52 billion on 27 June 2022. The average daily trading during the first half of 2022 was around $14.9 billion, over 300% higher than in 2021.
- Open interest reached a peak of around $36.3 billion at one point in June 2022. As of the end of June, open interest was around $26 billion, which was nearly double the end-2021 level.

Hang Seng TECH Index Futures have become the third most actively traded futures product in Hong Kong, following the HSI and HSCEI futures.

- Hang Seng TECH Index Futures accounted for about one-tenth of total futures trading in Hong Kong, indicating that this product may have potential for further development.
- The trend during the first half of 2022 showed that growth in trading of Hang Seng TECH Index Futures has outpaced that of HSI and HSCEI futures during the first half of 2022.

In addition, four out of the top 10 actively traded ETFs and leveraged and inverse products in Hong Kong track the Hang Seng TECH Index. This indicates strong investor demand for financial products relating to the technology sector to manage risk exposures.

The average daily turnover and open interest of Hang Seng TECH Index Futures (notional value, $ billion)