

# Hong Kong Banking Sector

Refer to important disclosures at the end of this report

DBS Group Research . Equity

29 Jun 2022

## Catching the interest rate hike cycle

- **Interest rate hike in HK may be higher than expected in 2H22, benefiting HK banks**
- **Expect HK economy recovery in 2H22 to support loan growth and asset quality**
- **Weak CNY/HKD and better stock market outlook in 2H22 supportive of HK bank performance**
- **Valuation still attractive; prefer [BOCHK \(2388 HK\)](#) to [HSB \(11 HK\)](#) with BUY on both**

**HK interest rate hike might be higher than expected.** HK banks' share performance is highly correlated with US and HK interest rate movements. While HK interest rate hikes usually lag US movements by a few months, and the aggregate balance remains high now, we expect the HIBOR might rise faster than expected, with signs that the HK interest rate swaps (IRS) and 12M-HIBOR are increasing sharply. Our house view expects the 1M-HIBOR to reach 2.28% by the end of the year.

**Looking for steady HK economy recovery in 2H22.** Our house view expects a 1.7% y-o-y growth in HK GDP in 2022, among the higher end of the government's guidance of 1%-2%. HK banks will benefit from 1) loan growth: We expect a steady 5%-6% y-o-y loan growth in HK, despite higher interest; and 2) improving asset quality. Also, the relatively weaker CNY/HKD is also supportive to HK banks' performance. Fee income was largely affected by the market volatility in 1H22, but we expect it to show a recovery trend in 2H22. We expect more expansion potential in 2023 for HK's GDP recovery and cross-border business, with border reopening the potential catalyst.

**Positive sector view and prefer BOCHK (2388 HK).** Overall, we are positive about the HK banking sector, as we have a positive outlook on its primary share price drivers and expect a recovery in ROE and profit growth in FY22/23F from the low base in FY21. We believe the positives are not yet fully priced in, given the sector is still trading below its five-year average. Among the names we cover, we prefer BOCHK (2388 HK) for the best asset quality among peers, and a strong loan growth pipeline. We also recommend BUY for HSB (11 HK), as it is the major beneficiary of the interest rate hike.

HSI: 22,419

### ANALYSTS

Ken Shih +852 36684184 kenshih@dbs.com

### Recommendation & valuation

Company Name	Price	Target Price	Recom	Mkt Cap	PE
	HK\$	Local\$		US\$m	23F x
<a href="#">BOCHK (2388 HK)</a>	31.55	37.40	BUY	42,507	9.7
<a href="#">HSB (11 HK)</a>	138.20	163.00	BUY	33,671	12.9

Source: Thomson Reuters, DBS Bank (Hong Kong) Limited ("DBS HK")



Live more, Bank less

## Hong Kong Banking Sector

### More positive view on impact of interest rate hikes

Interest rates are one of the primary share price drivers of the Hong Kong banking sector. We have made a Hong Kong banking sector index, which is the average performance of six Hong Kong or regional banks (Fig 1) relative to the HSI. We set the beginning date of 1 Jan 2005 as 1 for the index. Thereafter, above 1 indicates a relative outperformance compared to the HSI, while below 1 indicates an underperformance.

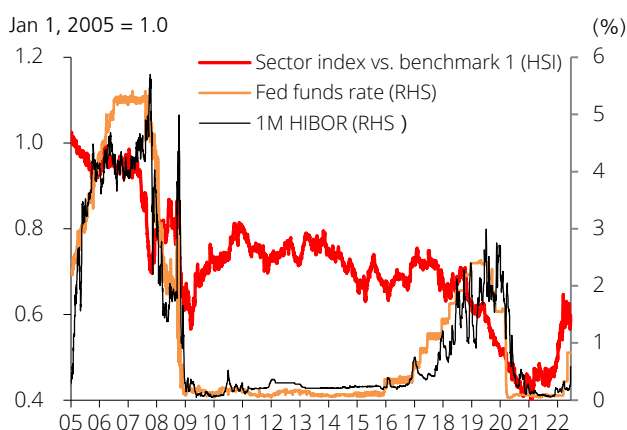
We found that interest rates, including both the US (Fed Funds) and HK (HIBOR) rates, are one of the primary share price drivers of the sector (Fig 2).

**Fig 1: Stocks included in the banking sector index**

	Ticker	Stock name
Stock 1	5 HK Equity	HSBC
Stock 2	11 HK Equity	Hang Seng Bank
Stock 3	23 HK Equity	Bank of East Asia
Stock 4	2356 HK Equity	Dah Sing Bank
Stock 5	2888 HK Equity	Standard Chartered
Stock 6	2388 HK Equity	BOCHK

Source: DBS HK

**Fig 2: Sector performance vs. interest rates**

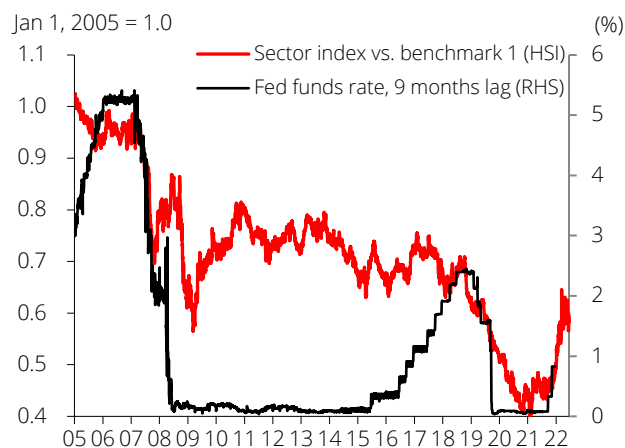


Source: Bloomberg Finance L.P., DBS HK

In fact, sector performance reacts when there's an expectation of an interest rate movement, ahead of the real change in interest rates. The interest rate shows higher correlation of 0.66 compared with 0.6 with sector performance if we use the 6-month lag data (Fig 3) instead of the original data. After years of unexciting performance, the HK banking sector was performing strongly recently, in expectation of the US interest rate hike cycle to carry on into 1H23, indicating that HK banking sector is likely to

continue to outperform in 2H22, if the share price movement is usually around 6 month ahead of the real interest rate change.

**Fig 3: A higher correlation with sector performance if we use Fed fund rate 6 months lag**



Source: Bloomberg Finance L.P., DBS HK

We have also conducted a correlation study between individual share price performance and the US/HK interest rate from 2017 until now (Fig 4). Key findings are: 1) All banks' share price performances, especially that of HSB and HSBC, show a significant correlation with the interest rates, while BOCHK may have a higher exposure to the RMB and a relatively lower correlation with the US/HK interest rates; 2) the correlation with the US rate is higher than that of the HK rate, which can be explained by the time lag between the HK and US rate movements and the share price movements reacting to "expectation" rather than actual interest rate revisions; and 3) banks, in general, show higher correlation with the 3M HIBOR, while the difference between the 1M and 3M US rates is not significant, which might be because the 3M HIBOR usually moves earlier than the 1M HIBOR.

**Fig 4: Share price correlation with interest rates since 2017**

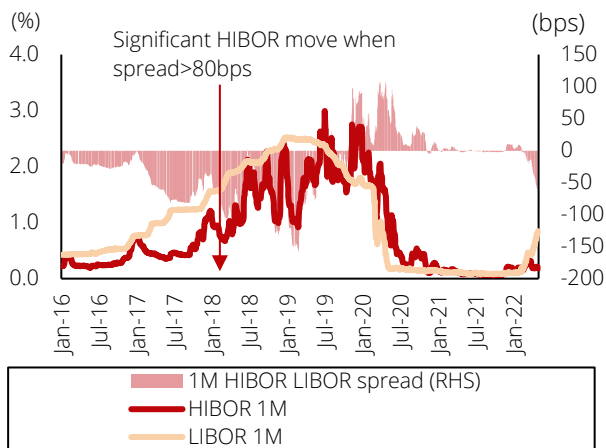
	1M HIBOR	3M HIBOR	1M Fed Rate	3M Fed rate
HSB	0.56	0.60	0.83	0.81
BOCHK	0.21	0.29	0.58	0.60
HSBC	0.40	0.48	0.73	0.74
SCB	0.34	0.40	0.62	0.63

Source: Bloomberg Finance L.P., DBS HK

**More upside in HK interest rate in 2023 due to the lagging effect.** The HK interest rate moved a few months later than the LIBOR and Fed Funds Rate in past interest rate cycles. While the Fed rate has climbed from 0.08% to 1.58% YTD, 1M HIBOR movement was much smaller, from 0.15% to 0.87% (Fig 5).

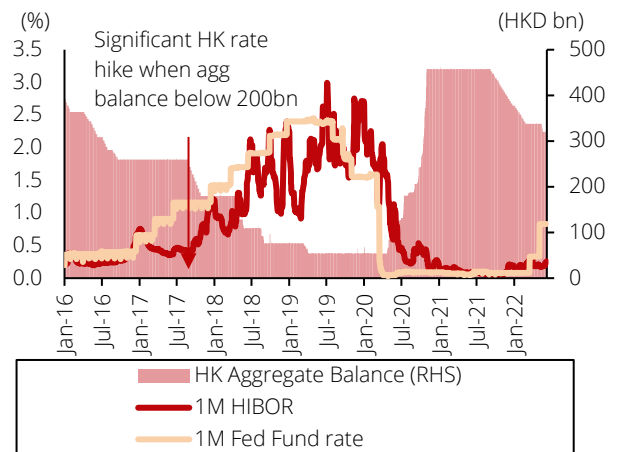
To stabilise the HKD, which is has been trading at around 7.84-7.85 against the USD lately, HKMA will soon have to issue Exchange Fund Bills and Notes or buy HKD to extract liquidity in the market. Though the aggregate balance has dropped quickly from HKD 320bn to HKD 230bn in recent two weeks, there's still plenty of interbank liquidity in Hong Kong. During the previous rate hike cycle, the HK interest rate showed a more significant hike when the aggregate balance fell to lower than the HK\$200bn level or the HIBOR-LIBOR spread was higher than 80bps to create enough room for arbitrage (currently c.65bps). There may still be more time till we see a significant hike in the HK interest rate. As such, the market generally expects the more positive impact on HK banks to be felt in 2023, while the impact in 2H22 will be lower.

**Fig 5: HIBOR vs. LIBOR**



Source: Bloomberg Finance L.P., DBS HK

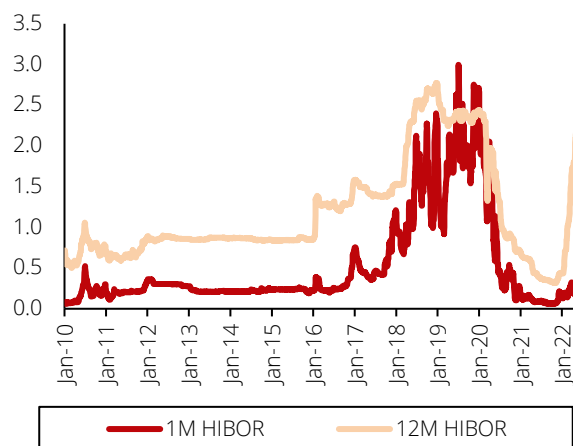
**Fig 6: HIBOR vs. Fed Funds Rate and aggregate balance**



Source: Bloomberg Finance L.P., DBS HK

**But what's the difference between this round and the 2016-18 interest upward cycle?** While the market has mostly followed the pattern seen during 2016-18 to forecast the HK interest rate movements, our house view expects a higher rate hike. This time, the pace of the US interest hike is much faster than the previous round and so the time lag between the HK and US rates may be shorter. In our house view, the Fed Funds Rate Target will increase from 0.5% to 3.5% by the end of this year. 1M-HIBOR is expected to reach 2.28% by end-2022. Supportive signals include 1) the 12M-HIBOR, a longer-term indicator of interest, which has already leapfrogged from 0.43% in early Jan to 3.29% lately; and 2) the climbing interest rate swap on HIBOR.

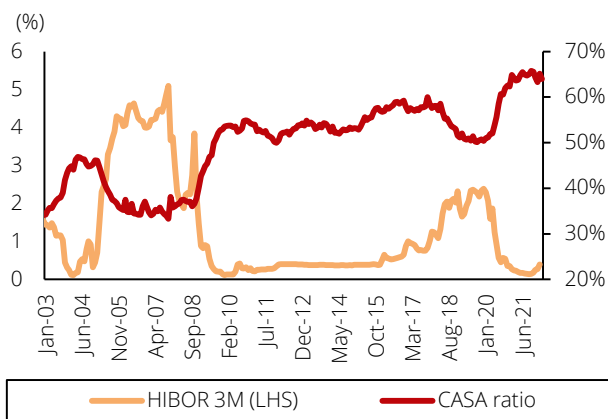
**Fig 7: 12M-HIBOR indicates a higher HK rate outlook**



Source: Bloomberg Finance L.P., DBS HK

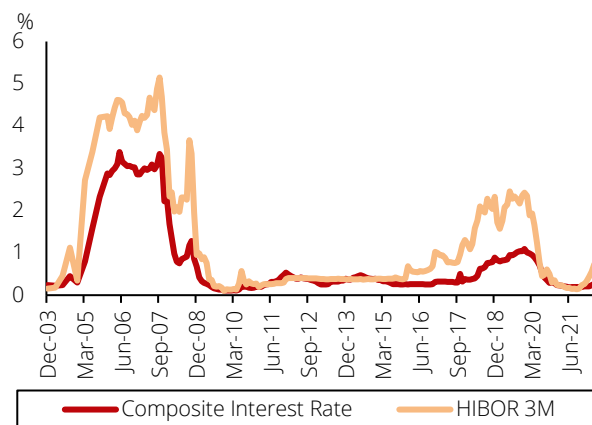
**Positive impact on HK banks' NIM and NII.** We expect the interest hike in loan yield to exceed that of deposit funding costs, which indicates a higher NIM for HK banks. Though the CASA ratio is highly negatively correlated with HIBOR movements and we expect it to further drop in 2022, it's likely to be higher than 50%, according to the pattern seen in 2016-2018 (Fig 8). This indicates a controllable increase in funding costs, as there's usually no interest cost in CASA. Overall, we see funding costs trending the same as the HIBOR 3M, but the extent of movement tends to be lower (Fig 9).

**Fig 8: CASA ratio >50% during previous interest rate hike**



Source: Bloomberg Finance L.P., DBS HK

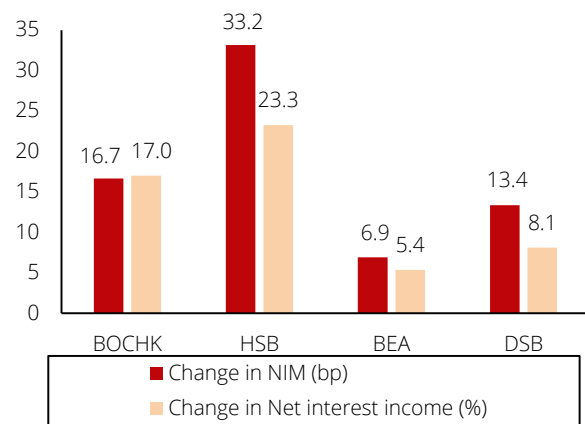
**Fig 9: Funding cost movement lower than HIBOR 3M**



Source: CEIC, Bloomberg, DBS HK

**HSB has the highest NIM sensitivity to HIBOR movement.** If all others remain the same, we estimate HK banks to see 5%-24% higher NII and 7%-33% bps higher NIM if HIBOR increases by 100bps, based on FY21's data (Fig 10). Among them, HSB would benefit the most from the HIBOR hike, as it has higher exposure to the relevant currencies (e.g., HKD and USD). It has 69% of its FY21 assets in HKD, which is the highest among its peers.

**Fig 10: FY21 HK bank sensitivity to 100bp HIBOR hike**

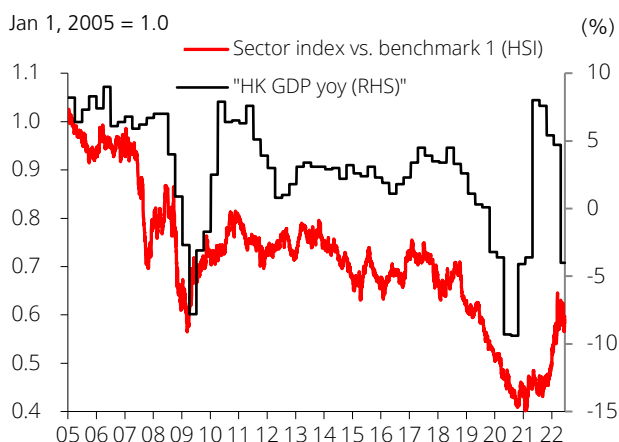


Source: Corporates, DBS HK

**A 1.7% y-o-y growth in HK GDP in 2022F to drive up banks' performance**

**HK GDP as another share price driver.** The HK banking sector's performance relative to GDP showed a high positive correlation of c.0.73 during 2005 to 2021 (Fig 11). It's easy to understand, as GDP growth affects banks' loan growth and asset quality, and thus affects the banks' revenue and costs.

**Fig 11: HK GDP vs. sector performance**



Source: Bloomberg Finance L.P., DBS HK

**Positive outlook in 2H22.** Despite a weak 1Q22 due to the impact from the fifth wave of Omicron, our house view expects a 1.7% y-o-y growth in HK GDP in 2022, which is in the higher end of the 1%-2% GDP growth expected by the government and higher than the market consensus. We expect the HK GDP growth to further expand to 2.7% y-o-y growth in 2023. Meanwhile, our house view expects the unemployment ratio to drop below 5% in 2H22. Yet, a stronger recovery of GDP growth will only be seen after the border between Hong Kong and mainland China is reopened, which is not expected to happen this year.

**Fig 12: DBS view on HK GDP growth**

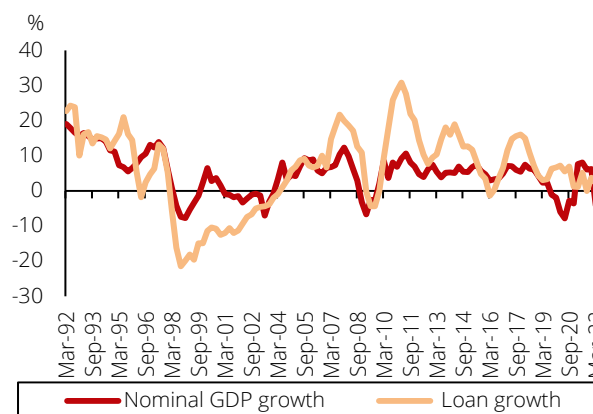
	1Q22	2Q22F	3Q22F	4Q22F
GDP	-4.0	-0.6	4.3	6.7
Unemployment ratio	5.0	5.1	4.5	3.7

Source: Bloomberg Finance L.P., DBS HK

Following a positive outlook on HK's economic growth in 2022, we expect HK banks to benefit from two major aspects:

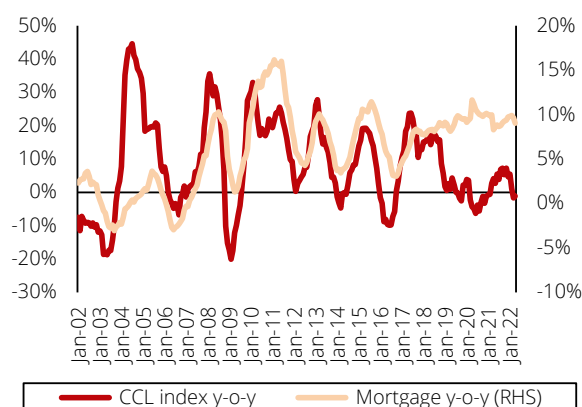
1) **Expect loan growth to recover to mid-single digit.** We found a high positive correlation of c.0.67 in the long run between nominal GDP growth and loan growth in HK (Fig 13). Though the higher interest rate will have a marginally negative impact on credit demand, we see economic recovery as the primary driver of loan growth in 2H22. HK total loans showed a c.2.2% y-o-y growth in 1Q22, despite the turbulence in GDP growth. This is supported by steady mortgage loan growth in 1Q22 (Fig 14). Although the Centa-City Leading (CCL) Index (based on current contract prices in Centaline Property Agency transactions) has trended by 4% lower in 1Q22, mortgage demand remains stable with 1% growth in the same period. Looking ahead, we expect HK banks' loan growth to rebound to 5%-6% y-o-y in 2022 and an even higher expansion in 2023 from 3.8% as of end-2021.

**Fig 13: HK loan growth positively correlated with GDP growth**



Source: Bloomberg Finance L.P., DBS HK

**Fig 14: Mortgage loans maintained solid growth**

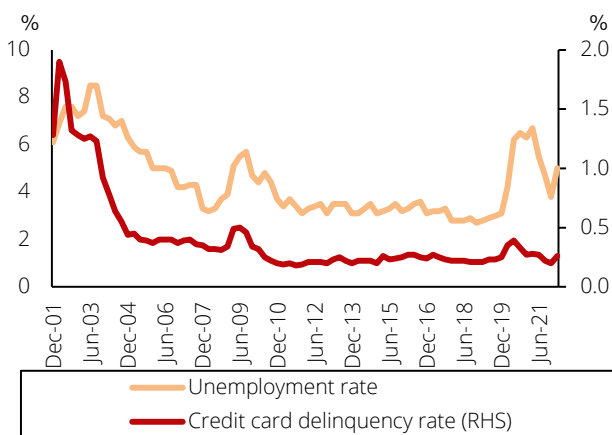


Source: Bloomberg Finance L.P., DBS HK

2) Benign asset quality

On the retail loan side, the unemployment ratio is a good indicator of retail loan asset quality. The credit card delinquency rate in HK improved from the recent peak of 0.39% in Jun 2020 to 0.2% by the end of 2021, and deteriorated again to 0.26% in 1Q22, with the unemployment ratio increasing to 5% from 3.8% in the same period (Fig 15). Looking ahead, we expect asset quality to improve in 2H22 from 1Q22, with the expectation of a dropping unemployment ratio.

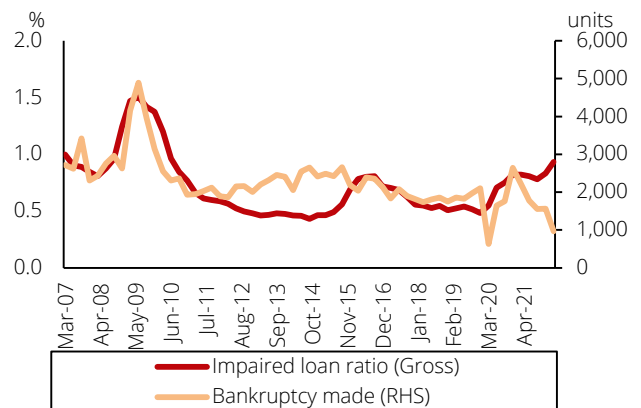
**Fig 15: Unemployment rate vs. credit card charge-off**



Source: Bloomberg Finance L.P., DBS HK

On the corporate loan side, we see the bankruptcy ratio as an indicator; it is trending the same as the impaired loan ratio in the long run (Fig 16). Again, despite the volatility in 1Q22, the impaired loan ratio has stabilised from the upward trend in 2020. The bankruptcy cases in HK declined by 41% y-o-y in 2021 and dropped by 56.2% y-o-y in 1Q22. This is a positive signal. We expect the good momentum to carry on over the rest of the year and improve banks' asset quality.

**Fig 16: Impaired loan ratio vs. bankruptcy cases**

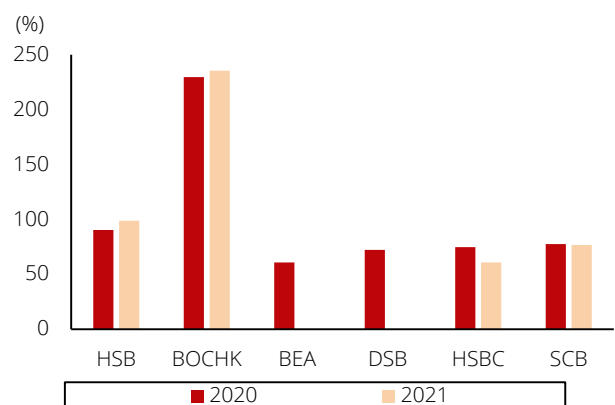


Source: Bloomberg Finance L.P., DBS HK

**Exposure to areas of concern controllable.** The key area of concern in terms of credit risk for HK banks is China property sector exposure. For example, HSB and BOCHK have c.RMB75-100bn in exposure to the China property sector, or roughly 6%-7% of their total loans. There will still exert short-term pressure in this sector due to a higher NPL ratio, but we expect steady development in the long run, with the government loosening policy restrictions on the China property sector.

In general, local asset quality in HK is stable with a low NPL ratio, while exposure to some other regions, like Russia or Southeast Asia, would be a potential risk. While we do predict a higher ECL in 1H22 in these regions, given the relatively small exposure, we expect the risks are controllable overall. Among the major peers, BOCHK reports the highest loan loss coverage ratio in 2020-21, indicating a more resilient risk profile.

**Fig 17: Provision coverage ratio**

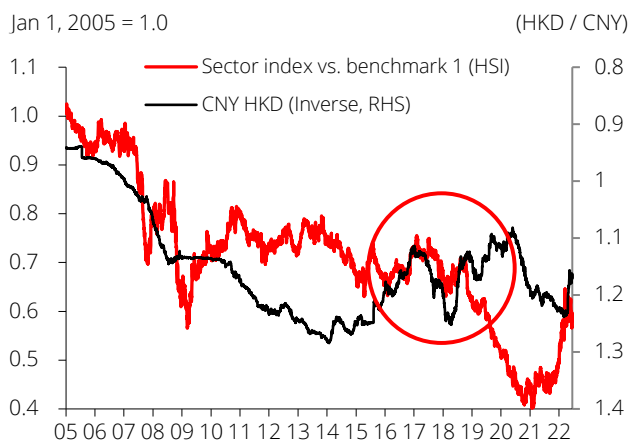


Source: Corporate, DBS HK

**Weaker CNY supportive of sector performance**

**CNY/HKD is another critical factor.** From our empirical research, we found the CNY/HKD also shows some correlation with the HK bank sector's performance (Fig 18). For example, during the last interest upward cycle in 2016-18, though the interest rate kept the upward trend, sector performance was weak in 2017-18, trending alongside a stronger CNY.

**Fig 18: CNY impact on sector performance**

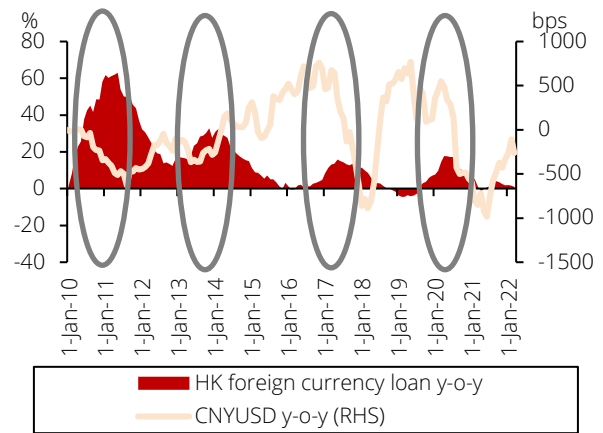


Source: Bloomberg Finance L.P., DBS HK

A weaker CNY may lead to weaker FX loan growth, but HK banks have higher RMB exposure on the liability side. We have seen a strong negative correlation of c.-0.6 between HK banks' FX loans and USD/RMB movements. FX loans showed strong growth when the RMB showed a strong appreciation trend towards the USD (downward trend as shown in Fig 19). As the RMB gets weaker and domestic interest rate declines, China corporates have lower incentives to engage in offshore lending. As such, we expect weaker FX loan growth in HK in 2022.

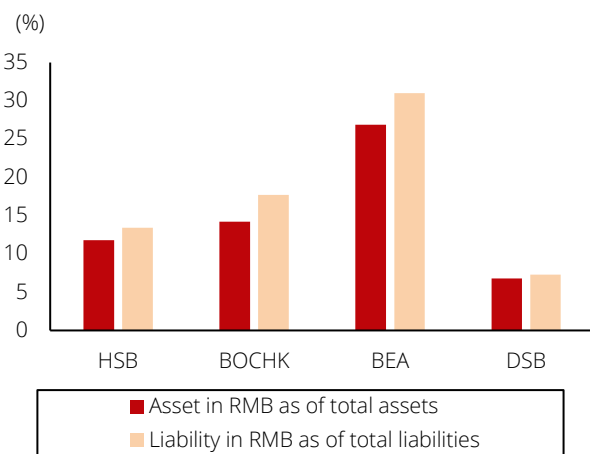
However, on the other hand, though the weaker RMB has some marginally negative impacts on banks' assets, the impacts on the liability side would be higher, given all major HK banks have higher exposure to RMB liabilities than RMB assets (Fig 20). The cost side would drop more than the asset side, indicating an overall positive impact on banks' earnings. Usually, currency movements tend to be linked with interest rate changes. When the CNY depreciates, it implies a lower interest rate in China and lower funding costs as well if HK banks absorb RMB deposits.

**Fig 19: Weaker FX loan growth with weaker RMB**



Source: Bloomberg Finance L.P., DBS HK

**Fig 20: FY21 RMB exposure in assets and liabilities**



Source: Corporates, DBS HK

**Expect weak CNY to be supportive to HK banks' performance.** Looking ahead, our house view expects CNY/USD to reach 6.85 in 3Q22 and gradually drop to 6.7 by 2Q23. We expect the CNY to remain weak in 2022. The expected recovery in 2023 is also quite mild. This would be supportive to HK banks' performance, based on our previous analysis.

**Fig 21: DBS house view on RMB rate**

	3Q22	4Q22	1Q23	2Q23
CNY/USD	6.85	6.80	6.75	6.70

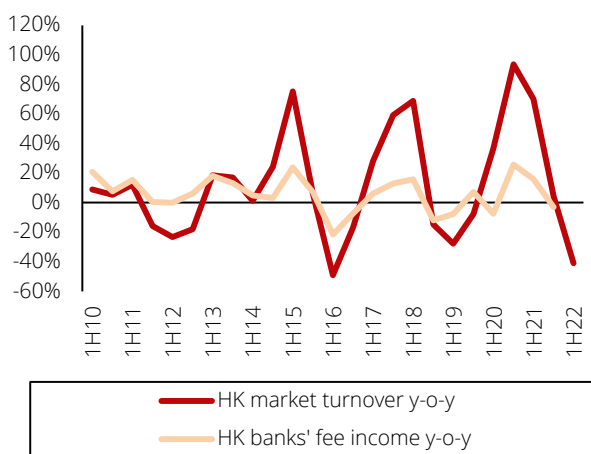
Source: Corporates, DBS HK



**Looking for better fee income performance in 2H22**

**Challenging environment for fee income in 1H22.** Apart from the NII, fee income takes up around 18%-25% of the total income of HK banks in FY20/21. The growth of total fee income in major HK banks shows a high correlation of 0.74 with the HK market's trading volume (Fig 22). The fifth wave of COVID-19, uncertainties from geopolitics, and the expectation of US interest hikes brought high market volatility to 1H22. 1H22 saw a c.41% y-o-y drop in HK market transaction volume, which is the second worst half-year performance since 2010, only better than -49% in 1H16. In 1H16, HK banks' fee income declined by c.21.7% y-o-y. We expect fee income growth in 1H22 to also be under high pressure, following an already weak 2H21, which saw a 2.9% y-o-y decline.

**Fig 22: HK banks' fee income vs. HK market turnover**



Source: Corporates, Wind, DBS HK

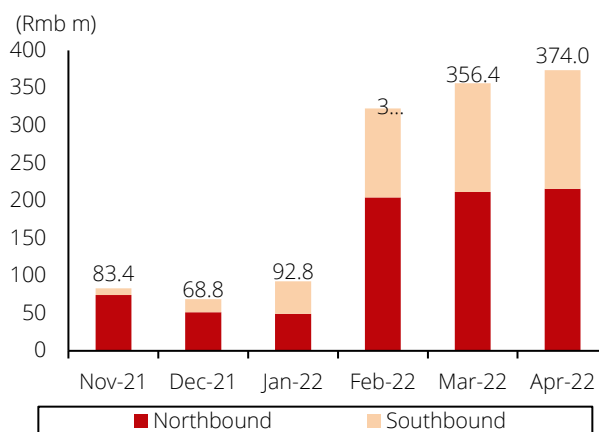
**Expect a better 2H22.** We expect a recovery in HK market transaction volume in 2H22 compared with 1H22, with the positive outlook on HK economy recovery. Looking back at the last interest hike cycle, we saw 2H16 HK market transaction volume decline by c.17% y-o-y. Though it was a y-o-y decline, the extent of the drop was better than in 1H16. We are expecting a similar pattern this year, especially as the HK market valuation is already near the bottom and very attractive now.

**Wealth Connect is a long-term opportunity.** Despite the recent market fluctuations and closed HK/China border, we believe the Wealth Management Connect (WMC) scheme in the Greater Bay Area (GBA) will provide a long-term growth opportunity for HK banks. We expect the aggregate quota ceiling for WMC will be removed, similar to Stock Connect.

Additionally, the potential income contribution is more than RMB3bn, assuming a 1% management fee charged from selling financial products based on an RMB300bn aggregate quota. Other fee income would come from RMB settlements, custody fees, and channel fees from selling wealth management products issued by third-party financial institutions. Thus, this offers an upside to HK/China banks' fee income. [\(For more details, pls refer to our report on the China Financial Sector released on 29 Jul 2021.\)](#)

In Feb-Apr 2022, the monthly trading value of WMC was around c.RMB320-370m, of which around 60% was from northbound investors. The WMC value was less than 0.2% of the total quota for both northbound and southbound investment. As some account openings and sales and promotion activities require face-to-face communication, we believe the development potential will be further unlocked after the border reopens.

**Fig 23: Monthly WMC value**

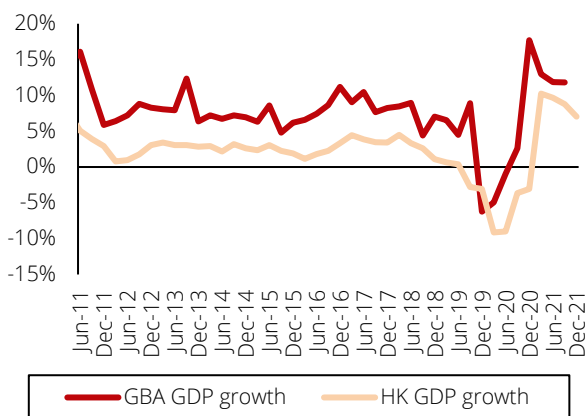


Source: PBOC Guangzhou Branch, DBS HK



GBA's GDP growth has been strong, at an average of 7% per annum during 2014-2021, vs. HK at 2% (Fig 24). We expect increasing cross-border investments and transactions as well as the border reopening in 2023 to bring more fee income opportunities to HK banks. Various HK banks are prepared with talent, product offerings, and account opening processes to seize this opportunity.

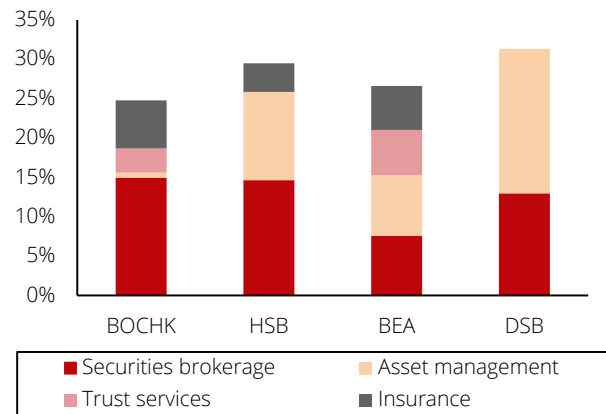
**Fig 24: GBA GDP growth outpaces HK's growth**



Source: Wind, DBS HK

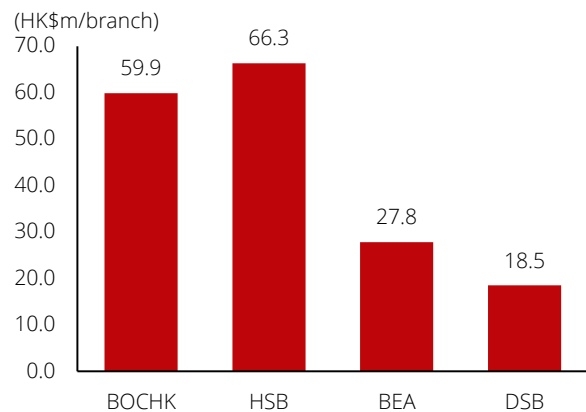
**BOCHK has the most branch exposure in GBA while HSB leads in branch productivity.** In FY21, the portion of fee income that may benefit from the WMC as of net profit was 25%-31% for the four major HK banks (Fig 25). Among the HK banks, BOCHK has more branches in the Greater Bay Area if BOC's branches are also counted. Leveraging on its parent company, its total branches in the region would be 1,109 vs. BEA with 85, HSB at 67, and DSB at 61. However, HSB has the highest branch productivity in terms of fee contribution due to its strong presence in the stock market and investment funds – each branch, on average, generated HK\$66m in fee income in FY21 (Fig 26).

**Fig 25: Potential of HK banks' fee income, which may benefit from WMC**



Source: Corporates, DBS HK

**Fig 26: Branch productivity in terms of fee income**



Source: Corporates, DBS HK

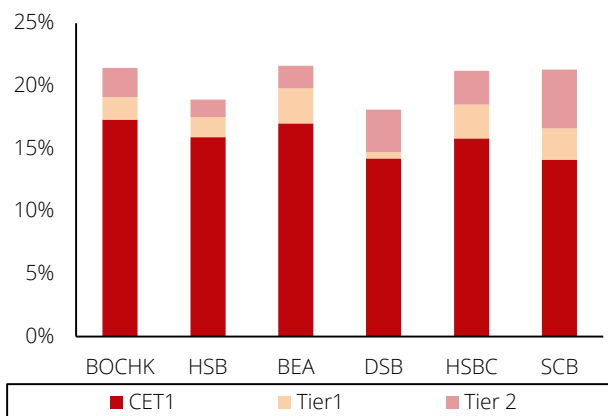
Hong Kong Banking Sector

Capital level and regulation

**Strong capital level of HK banks.** Major banks in HK reported a c.14%-17% CET1 ratio and 18%-22% CAR ratio by the end of 2021 (Fig 27). This is well above the regulatory requirement of a 4.5% CET1 ratio after the buffers are considered: i.e., 1) 2.5% for Capital Conservative Buffer (CCB); 2) the Counter-cyclical Buffer (CCyB), which is 1% in HK since Mar 2020 (Fig 28); and 3) the Higher Loss Absorbency (HLA) of HK domestic systematically important banks ("D-SIBs), which is another 1%-3.5% buffer (Fig 29). Among the major HK banks, HSBC has the highest required buffer for D-SIBs of 2.5%. HSBC and SCB are also in the list of G-SIBs (Global Systematically Important Banks), while both their required HLA buckets in G-SIBs are 50bps lower than the HK D-SIBs requirements. The required CET 1 ratio would be 9%-10.5% for the major HK banks after all the additional buffers are added.

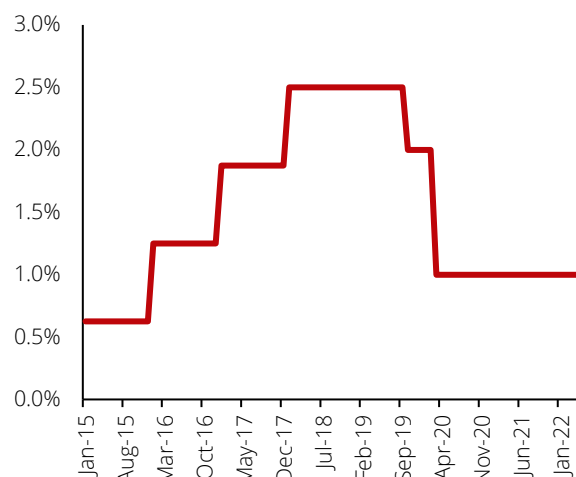
The revised Basel III implementation will take effect from July 2023. We expect major HK banks to maintain strong capital levels in the mid-term, as RWA (risk-weighted assets) may be reduced using the internal model under Basel III.

Fig 27: Capital ratio of HK banks by FY21



Source: Corporates, DBS HK

Fig 28: HKMA CCyB requirements



Source: HKMA, DBS HK

Fig 29: HK D-SIBs

HLA bucket	D-SIBs	HLA requirement Year 2022
5	N/A	3.5%
4	HSBC	2.5%
3	N/A	2.0%
2	BOCHK, SCB	1.5%
1	HSB, ICBC (Asia)	1.0%

Source: HKMA, DBS HK

The HKMA has published requirements on the loss-absorbing capacity (LAC) for the banking sector, which took effect from December 2018. Local D-SIBs, such as HSB, have already been following the LAC requirements. In FY21, HSB reported an internal LAC risk-weighted ratio of 22.2% and an internal LAC leverage ratio of 9.6%. The CET 1 capital ratio, after meeting the LAC requirements, is 10.2%, still well above its minimum required CET 1 ratio of 9%.

As a subsidiary of an emerging market G-SIB, BOCHK has yet to follow the HK LAC requirements, but we expect that will not be the case for long. BOCHK may need to issue more bonds to meet the requirement specifying that one-third of the LAC tool should be bonds. Since China's TLAC requirement will take effect in 2025, BOCHK may have to meet HK requirements before its parent group BOC.

**Stock comparison and valuation**

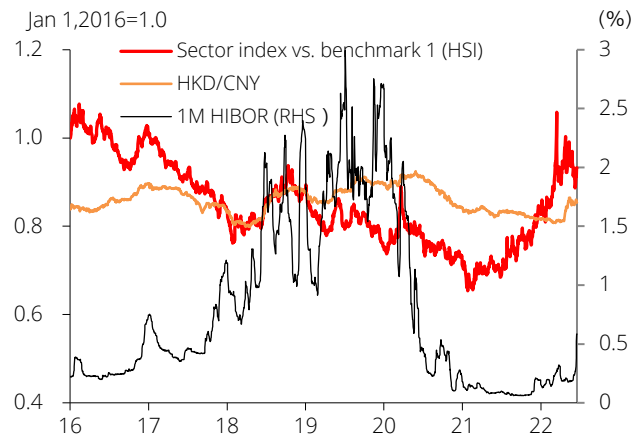
**Positive outlook on HK banks.** We have a generally positive view about HK banking sector performance in 2H22, with the interest rate hike, recovering HK GDP, a more stabilised stock market, and more cross-border business recovers like WMC after the China-HK border reopens. The sector is now trading at an undemanding valuation below its five-year average P/B.

After taking a closer look at the sector’s performance during the last interest rate hike cycle in 2016-2018(Fig 30), our key findings are: 1) In the early stage of the last round of the interest rate hike, the HK banking sector underperformed the HSI with the same trend of a strong CNY to HKD in 2016-2017; 2) sector performance showed more upside when the 1M HIBOR exceeded 1% and at the same time, the HKD was turning stronger; 3) the sector upward trend ended when the 1M HIBOR hit 2% and became more volatile in late 2018, mixed with the negative impact from social unrest in late 2019 and the COVID-19 outbreak in 2020.

If looking at the valuation perspective, both HSB and BOCHK has enjoyed a P/B re-rating in the past interest rate upward cycles (Fig 31). Their current P/B level of 1x and 1.4x forward P/B was much lower than their valuation peak during 2016-2018, which were around 1.6/2.3x respectively. We see plenty of re-rating room even a lower GDP growth than 2016-2018 was taken into consideration.

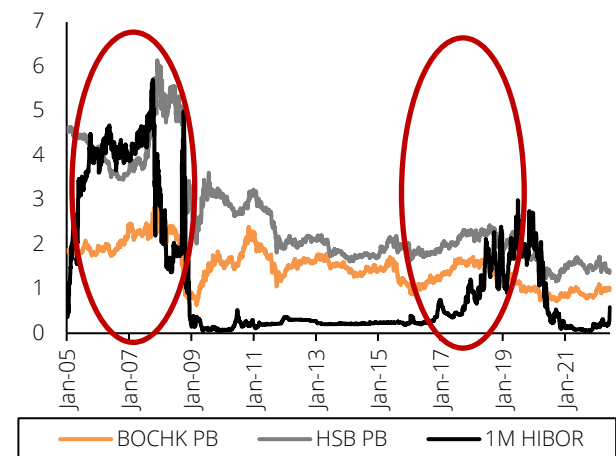
Thus, we are positive about the near-term performance of the HK banking sector, given 1) that in comparison with the early interest hike period of the last round, the CNY remained weak as China was loosening its monetary policy; 2) the current 1M HIBOR is around 0.8%, still with a high potential upside, and we expect less HIBOR volatility and it is likely to remain high in 2H22-2023 with the high inflation expectation in the US; 3) despite the sector having already picked up quite a lot since 2021, its relative performance to the HSI has just recovered to 2016’s level and offers a 4%-5% dividend yield with an attractive valuation. With a higher-than-consensus outlook on the 1M HIBOR and 2022 HK GDP growth, we expect a further upside for the sector.

**Fig 30: Sector performance in last interest hike cycle**



Source: Bloomberg Finance L.P., DBS HK

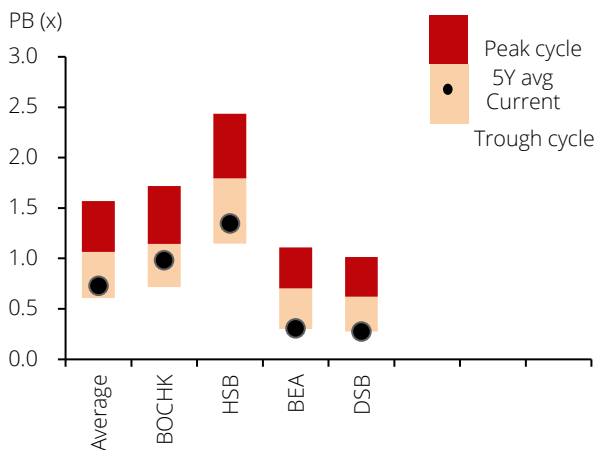
**Fig 31: HK bank stocks re-rated in interest rate upward cycle**



Source: Bloomberg Finance L.P., DBS HK

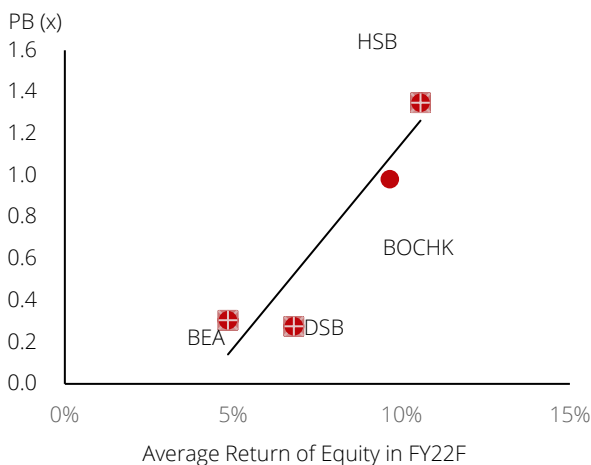
**Catalysts and risks:** Major catalysts are 1) higher interest rate hike than expected and 2) China/HK border reopening. Potential risks are 1) higher stock market volatility with higher uncertainties in the geopolitical environment and 2) another wave of COVID-19 and tightening social distancing measures.

**Fig 32: 5-yr valuation**



Source: Bloomberg Finance L.P., DBS HK

**Fig 33: P/B vs. ROE**



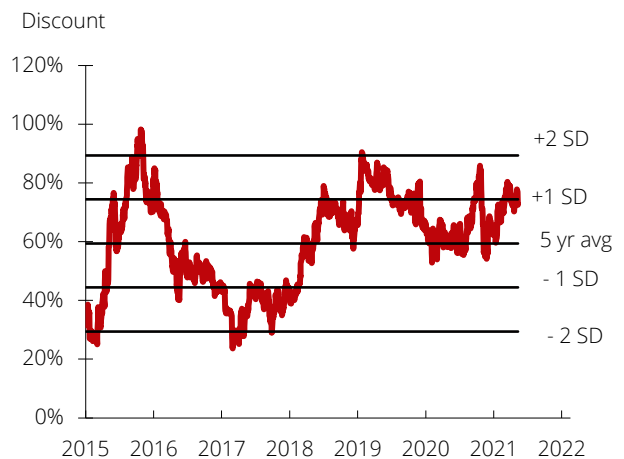
Source: Bloomberg Finance L.P., DBS HK

**Top pick: BOCHK.** From the sector, we prefer BOCHK, for it 1) is benefitting from its strong presence in GBA and ASEAN, which serves as the next revenue growth engine; 2) has

solid asset quality and lowest credit cost among peers; 3) is currently trading at c.1x FY22F P/B or 0.9x FY23F P/B, lower than its five-year average of c.1.1x forward P/B – its valuation gap with HSB is also at the higher end among historical gaps (Fig 34); and 4) improving ROE in 2021 – reportedly the highest ROE among its peers – with the lowest cost-to-income ratio.

Compared with its peers, BOCHK has the lowest NIM. However, we don't think this would be a large concern, as 1) it's offset by higher loan growth – in FY21, BOCHK had total loan growth of 6.9% y-o-y, the highest among its peers, and thus, it had higher NII growth than HSB in both FY20 and FY21; 2) its lower NIM is largely due to it mainly lending to quality clients, e.g., China SOEs – it has the lowest exposure to risky sectors (property, manufacturing, and wholesale and retail) and credit card loans among peers, leading to its lowest NPL ratio and credit cost; and 3) it has a lower CASA ratio than HSB due to lower local recognition in HK – BOCHK is working to explore more opportunities such as government payments to improve its CASA ratio.

**Fig 34: HSB/BOCHK P/B valuation gap**



Source: Bloomberg Finance L.P., DBS HK

We also have a BUY recommendation on HSB. Though FY22 may still be faced with challenges in terms of fee income, we expect it to see more fee income expansion in 2023, as it's well positioned for the WMC. We expect the recovering fee income growth and loan growth to lead to an ROE recovery.

Fig 35: NIM trend

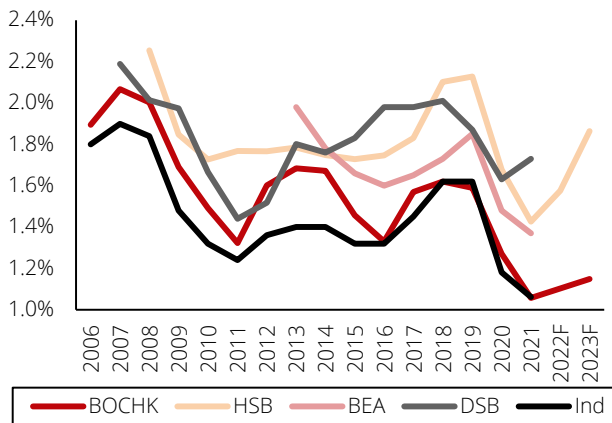


Fig 37: NII growth

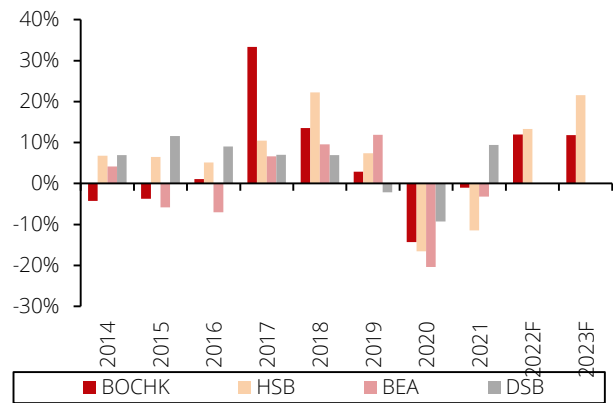


Fig 36: Loan growth

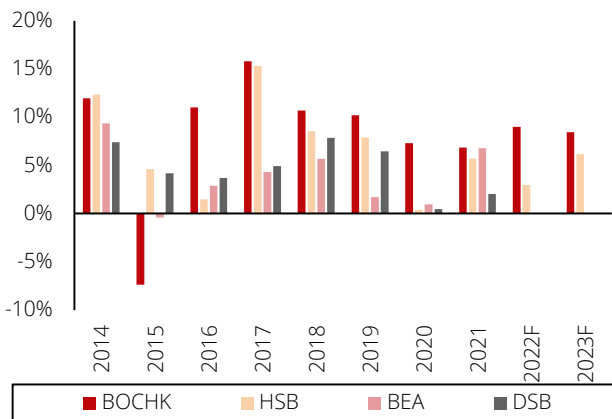
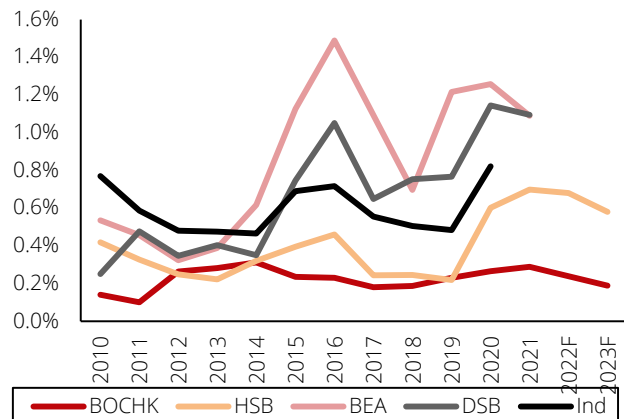


Fig 38: NPL ratio



Source: Corporates, DBS HK

Fig 39: Credit cost

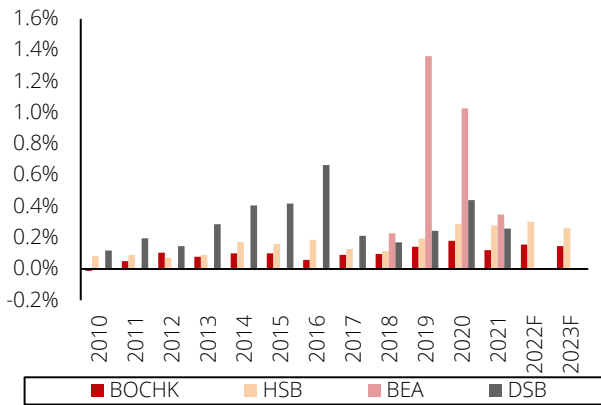


Fig 41: Core net profit growth

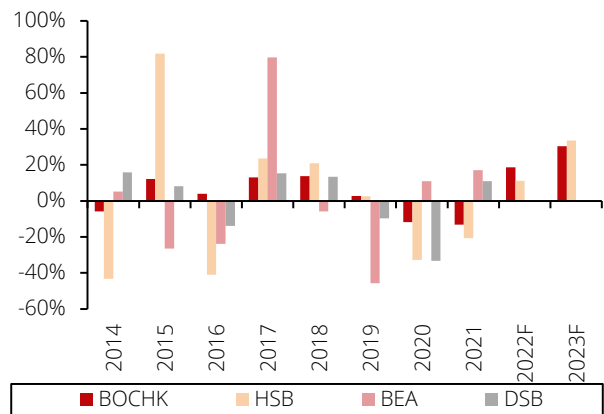


Fig 40: Cost-to-income ratio

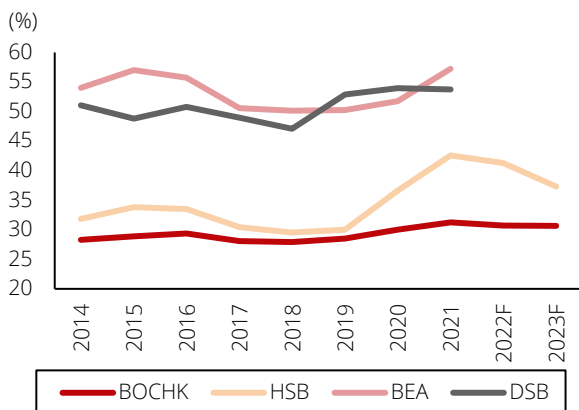
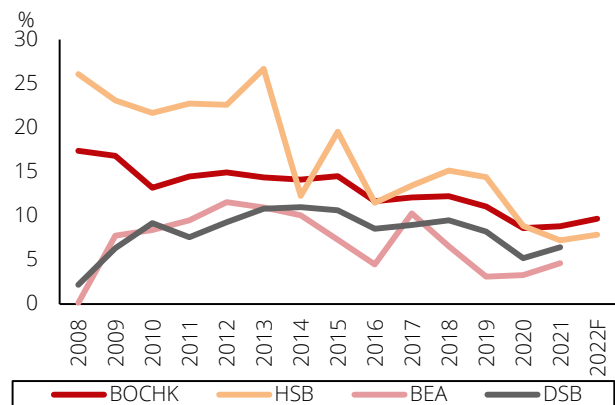


Fig 42: Core ROE



Source: Corporates, DBS HK

Fig 43: Major HK banks' operation comparison

Unit: HKD mn, otherwise indicated FY21	11 HSB	2388 BOCHK	23 BEA	2356 DSB
Net interest income	23,822	31,941	11,185	3,944
Net revenue	33,182	48,982	16,283	5,384
Net interest income/net revenue (%)	72	65	69	73
Total loans in HK	742,439	1,083,205	262,209	98,550
-Corporate loan	401,528	581,799	136,874	47,772
-Consumer loan	340,911	501,406	125,335	50,778
Trade finance	41,732	73,611	6,088	8,123
Loans for use outside of HK	220,154	442,268	280,511	37,640
Corporate loan/total loan in HK (%)	54.1	53.7	52.2	48.5
Consumer loan/total loan in HK (%)	45.9	46.3	47.8	51.5
Total loans in HK/ total loan (%)	73.9	67.7	47.8	68.3
Risky sector/corporate loan (%)	69.2	54.3	70.8	67.2
Real estate sector/corporate loan (%)	56.8	42.0	61.7	51.7
Mortgage/consumer loan (%)	82.5	76.7	74.1	67.0
Credit card/consumer loan (%)	8.3	2.4	3.4	7.2
Non-performing loan	7011	4,321	5,977	2,454
NPL ratio (%)	0.70	0.27	1.09	1.70
Credit cost (bp)	27.9	13.4	34.8	24.3
Coverage ratio (%)	98.8	235.4	73.1	51.2
CET 1 (%)	15.9	17.3	17.0	14.2
NIM (%)	1.49	1.06	1.37	1.72
ROA (%)	0.9	0.9	0.7	0.8
ROE (%)	7.2	7.8	4.6	5.5
CASA as of total deposit (%)	83.0	65.3	43.6	45.9
Customer deposit	1,230,216	2,331,155	633,505	196,135
Fee income	6577	11872	3069	1197
Fee income/ net revenue (%)	19.8	24.2	18.8	22.2
WMC related fee income/total fee (%)	29.5	24.8	26.6	31.3
WMC related fee income/branch	66.3	59.9	27.8	18.5
Cost-to-income ratio	42.6	33.5	63.7	56.1
Net income	13960	24348	5270	1658
Net income growth y-o-y (%)	-21	-18	58	15

Source: Corporates, DBS HK



Fig 42: Peer table

Company Name	Code	Target		Recom	Mkt Cap US\$m	Fiscal Yr	PE		Yield		P/Bk		ROE		FY21-23 Earnings CAGR
		Price Local\$	Price Local\$				22F x	23F x	22F %	23F %	22F x	23F x	22F %	23F %	%
<b>H-share banks</b>															
Agricultural Bk.Of Chin. 'H'*	1288 HK	2.96	3.10	HOLD	154,845	Dec	3.8	3.6	8.4	8.8	0.4	0.4	10.9	10.6	3.8
Bank Of Comms.'H'*	3328 HK	5.33	6.70	BUY	52,860	Dec	3.8	3.6	8.4	8.8	0.4	0.4	10.8	10.6	7.1
China Merchants Bank 'H'*	3968 HK	51.40	79.00	BUY	157,016	Dec	8.2	7.3	4.0	4.5	1.3	1.2	18.3	17.1	14.5
China Citic Bank 'H'*	998 HK	3.51	4.60	BUY	30,718	Dec	2.7	2.4	10.7	11.7	0.2	0.2	11.0	11.4	6.9
China Everbright Bk.'H'*	6818 HK	2.58	3.25	BUY	23,834	Dec	2.9	2.6	9.7	10.5	0.3	0.3	10.7	10.9	8.4
China Minsheng Banking 'H'	1988 HK	2.82	n.a.	NR	22,550	Dec	3.1	3.1	9.3	9.0	0.2	0.2	6.3	6.4	5.1
Chongqing Rur.Coml.Bk. 'H'	3618 HK	2.85	n.a.	NR	6,134	Dec	2.7	2.5	10.1	11.1	0.3	0.2	9.6	9.8	7.4
Postal Savings Boc.'H'*	1658 HK	6.06	8.10	BUY	72,421	Dec	5.8	5.2	5.5	6.1	0.7	0.6	12.5	12.9	14.0
<b>A-share banks</b>															
Agricultural Bank Of China 'A'*	601288 CH	3.01	3.20	HOLD	154,845	Dec	4.5	4.3	7.0	7.4	0.5	0.4	10.9	10.6	3.8
Bank Of Comms.'A'*	601328 CH	4.97	6.10	BUY	52,860	Dec	4.2	3.9	7.7	8.1	0.4	0.4	10.8	10.6	7.1
China Merchants Bank 'A'*	600036 CH	41.28	67.40	BUY	157,016	Dec	7.7	6.8	4.3	4.8	1.2	1.1	18.3	17.1	14.5
China Citic Bank 'A'*	601998 CH	4.74	5.00	HOLD	30,718	Dec	4.3	3.9	6.8	7.4	0.4	0.3	11.0	11.4	6.9
China Everbright Bk.'A'*	601818 CH	3.19	3.10	HOLD	23,834	Dec	4.1	3.8	6.7	7.3	0.4	0.4	10.7	10.9	8.4
China Minsheng Banking 'A'	600016 CH	3.70	n.a.	NR	22,550	Dec	5.1	4.8	6.1	5.9	0.3	0.3	6.3	6.4	4.9
CQ Rural Commercial Bank 'A'	601077 CH	3.96	n.a.	NR	6,134	Dec	4.3	3.9	6.7	7.2	0.4	0.4	9.7	9.9	9.6
Postal Savings Bank Of China 'A'*	601658 CH	5.28	7.40	BUY	72,421	Dec	5.9	5.3	5.4	6.0	0.7	0.7	12.5	12.9	14.0
Bank Of Shai. 'A'	601229 CH	6.55	n.a.	NR	13,872	Dec	4.1	3.8	7.3	7.9	0.5	0.4	11.7	11.9	7.2
Ping An Bank 'A'*	000001 CH	14.63	21.10	BUY	42,324	Dec	7.2	6.1	1.8	2.1	0.8	0.7	11.5	12.2	17.8
<b>HK banks</b>															
Hang Seng Bank*	11 HK	138.20	163.00	BUY	33,671	Dec	17.2	12.9	4.1	5.5	1.4	1.4	8.3	10.8	21.7
Boc Hong Kong Holdings*	2388 HK	31.55	37.40	BUY	42,507	Dec	12.4	9.7	4.2	5.3	1.1	1.0	8.8	10.7	22.1
Bank Of East Asia	23 HK	11.12	n.a.	NR	3,810	Dec	7.3	5.8	6.7	8.0	0.3	0.3	4.0	4.9	11.1
Dah Sing Banking Gp.	2356 HK	6.47	n.a.	NR	1,159	Dec	4.9	4.3	6.2	7.1	0.3	0.3	6.6	7.8	13.2
<b>ASEAN banks</b>															
Oversea-Chinese Bkg.	OCBC SP	11.46	15.00	BUY	37,282	Dec	9.6	8.3	5.0	5.7	0.9	0.9	10.1	11.1	13.6
United Overseas Bank	UOB SP	26.49	37.00	BUY	32,180	Dec	10.1	8.3	5.0	5.9	1.0	1.0	10.4	12.0	15.9
Rhb Bank Bhd	RHBBANK MK	5.72	6.00	BUY	5,480	Dec	8.8	7.4	6.0	6.9	0.8	0.8	9.2	10.6	10.5
Public Bank	PBK MK	4.46	4.45	HOLD	19,690	Dec	14.8	12.5	3.5	4.0	1.7	1.6	11.7	13.1	10.6
<b>Global banks</b>															
Bank Of America	BAC US	32.26	n.a.	NR	259,915	Dec	9.7	8.2	2.8	3.1	1.0	1.0	11.2	12.2	0.8
Citigroup	C US	47.21	n.a.	NR	91,678	Dec	7.0	6.6	4.4	4.7	0.5	0.5	7.3	7.5	(19.4)
Jp Morgan Chase & Co.	JPM US	115.82	n.a.	NR	340,169	Dec	10.1	9.0	3.6	3.8	1.3	1.2	13.0	13.7	(10.5)
Standard Chartered (Hkg)	2888 HK	58.95	n.a.	NR	22,293	Dec	8.4	6.6	2.2	2.8	0.5	0.4	5.8	7.0	39.9
Hsbc Holdings	5 HK	52.05	n.a.	NR	132,999	Dec	10.6	8.0	4.1	5.5	0.7	0.7	6.1	8.5	15.6

# FY22: FY23; FY23: FY24

Source: Thomson Reuters, \*DBS HK

DBS HK recommendations are based on an Absolute Total Return\* Rating system, defined as follows:

**STRONG BUY** (>20% total return over the next 3 months, with identifiable share price catalysts within this time frame)

**BUY** (>15% total return over the next 12 months for small caps, >10% for large caps)

**HOLD** (-10% to +15% total return over the next 12 months for small caps, -10% to +10% for large caps)

**FULLY VALUED** (negative total return, i.e., > -10% over the next 12 months)

**SELL** (negative total return of > -20% over the next 3 months, with identifiable share price catalysts within this time frame)

\*Share price appreciation + dividends

Completed Date: 29 Jun 2022 09:29:38 (HKT)

Dissemination Date: 29 Jun 2022 15:28:38 (HKT)

Sources for all charts and tables are DBS HK unless otherwise specified.

#### GENERAL DISCLOSURE/DISCLAIMER

**This report is prepared by DBS Bank (Hong Kong) Limited ("DBS HK").** This report is solely intended for the clients of DBS Bank Ltd., DBS HK, DBS Vickers (Hong Kong) Limited ("DBSV HK"), and DBS Vickers Securities (Singapore) Pte Ltd. ("DBSVS"), its respective connected and associated corporations and affiliates only and no part of this document may be (i) copied, photocopied or duplicated in any form or by any means or (ii) redistributed without the prior written consent of DBS HK.

The research set out in this report is based on information obtained from sources believed to be reliable, but we (which collectively refers to DBS Bank Ltd., DBS HK, DBSV HK, DBSVS, its respective connected and associated corporations, affiliates and their respective directors, officers, employees and agents (collectively, the "DBS Group") have not conducted due diligence on any of the companies, verified any information or sources or taken into account any other factors which we may consider to be relevant or appropriate in preparing the research. Accordingly, we do not make any representation or warranty as to the accuracy, completeness or correctness of the research set out in this report. Opinions expressed are subject to change without notice. This research is prepared for general circulation. Any recommendation contained in this document does not have regard to the specific investment objectives, financial situation and the particular needs of any specific addressee. This document is for the information of addressees only and is not to be taken in substitution for the exercise of judgement by addressees, who should obtain separate independent legal or financial advice. The DBS Group accepts no liability whatsoever for any direct, indirect and/or consequential loss (including any claims for loss of profit) arising from any use of and/or reliance upon this document and/or further communication given in relation to this document. This document is not to be construed as an offer or a solicitation of an offer to buy or sell any securities. The DBS Group, along with its affiliates and/or persons associated with any of them may from time to time have interests in the securities mentioned in this document. The DBS Group, may have positions in, and may effect transactions in securities mentioned herein and may also perform or seek to perform broking, investment banking and other banking services for these companies.

Any valuations, opinions, estimates, forecasts, ratings or risk assessments herein constitutes a judgment as of the date of this report, and there can be no assurance that future results or events will be consistent with any such valuations, opinions, estimates, forecasts, ratings or risk assessments. The information in this document is subject to change without notice, its accuracy is not guaranteed, it may be incomplete or condensed, it may not contain all material information concerning the company (or companies) referred to in this report and the DBS Group is under no obligation to update the information in this report.

This publication has not been reviewed or authorized by any regulatory authority in Singapore, Hong Kong or elsewhere. There is no planned schedule or frequency for updating research publication relating to any issuer.

The valuations, opinions, estimates, forecasts, ratings or risk assessments described in this report were based upon a number of estimates and assumptions and are inherently subject to significant uncertainties and contingencies. It can be expected that one or more of the estimates on which the valuations, opinions, estimates, forecasts, ratings or risk assessments were based will not materialize or will vary significantly from actual results. Therefore, the inclusion of the valuations, opinions, estimates, forecasts, ratings or risk assessments described herein IS NOT TO BE RELIED UPON as a representation and/or warranty by the DBS Group (and/or any persons associated with the aforesaid entities), that:

- (a) such valuations, opinions, estimates, forecasts, ratings or risk assessments or their underlying assumptions will be achieved, and
- (b) there is any assurance that future results or events will be consistent with any such valuations, opinions, estimates, forecasts, ratings or risk assessments stated therein.

Please contact the primary analyst for valuation methodologies and assumptions associated with the covered companies or price targets. Any assumptions made in this report that refers to commodities, are for the purposes of making forecasts for the company (or companies) mentioned herein. They are not to be construed as recommendations to trade in the physical commodity or in the futures contract relating to the commodity referred to in this report.

### Hong Kong Banking Sector

---

DBS Vickers Securities (USA) Inc (“DBSVUSA”), a US-registered broker-dealer, does not have its own investment banking or research department, has not participated in any public offering of securities as a manager or co-manager or in any other investment banking transaction in the past twelve months and does not engage in market-making.

Neither DBS Bank Ltd nor DBS HK market makes in equity securities of the issuer(s) or company(ies) mentioned in this Research Report.

#### ANALYST CERTIFICATION

The research analyst(s) primarily responsible for the content of this research report, in part or in whole, certifies that the views about the companies and their securities expressed in this report accurately reflect his/her personal views. The analyst(s) also certifies that no part of his/her compensation was, is, or will be, directly or indirectly, related to specific recommendations or views expressed in the report. The research analyst (s) primarily responsible for the content of this research report, in part or in whole, certifies that he or his associate<sup>1</sup> does not serve as an officer of the issuer or the new listing applicant (which includes in the case of a real estate investment trust, an officer of the management company of the real estate investment trust; and in the case of any other entity, an officer or its equivalent counterparty of the entity who is responsible for the management of the issuer or the new listing applicant) and the research analyst(s) primarily responsible for the content of this research report or his associate does not have financial interests<sup>2</sup> in relation to an issuer or a new listing applicant that the analyst reviews. DBS Group has procedures in place to eliminate, avoid and manage any potential conflicts of interests that may arise in connection with the production of research reports. The research analyst(s) responsible for this report operates as part of a separate and independent team to the investment banking function of the DBS Group and procedures are in place to ensure that confidential information held by either the research or investment banking function is handled appropriately. There is no direct link of DBS Group's compensation to any specific investment banking function of the DBS Group.

#### COMPANY-SPECIFIC / REGULATORY DISCLOSURES

1. DBS Bank Ltd, DBS HK, DBSVS or their subsidiaries and/or other affiliates have proprietary positions in Agricultural Bank of China Ltd (1288 HK), Bank of Communications Co Ltd (3328 HK), China Merchants Bank Co Ltd (3968 HK), China CITIC Bank Corp Ltd (998 HK), China Minsheng Banking Corp Ltd (1988 HK), Postal Savings Bank of China Co Ltd (1658 HK), Hang Seng Bank Ltd (11 HK), BOC Hong Kong Holdings Ltd (2388 HK), Bank of East Asia Ltd/The (23 HK), Standard Chartered PLC (2888 HK) and HSBC Holdings PLC (5 HK) recommended in this report as of 27 Jun 2022.

DBS Bank Ltd, DBS HK, DBSVS or their subsidiaries and/or other affiliates have a proprietary position in Oversea-Chinese Banking Corp Ltd (OCBC SP) and United Overseas Bank Ltd (UOB SP) recommended in this report as of 31 May 2022.

2. DBS Bank Ltd, DBS HK, DBSVS, their subsidiaries and/or other affiliates have a net long position exceeding 0.5% of the total issued share capital in China Merchants Bank Co Ltd (3968 HK) and Postal Savings Bank of China Co Ltd (1658 HK) recommended in this report as of 27 Jun 2022.
3. DBS Bank Ltd, DBS HK, DBSVS, DBS Vickers Securities (USA) Inc (“DBSVUSA”), or their subsidiaries and/or other affiliates beneficially own a total of 1% of the issuer's market capitalization of Postal Savings Bank of China Co Ltd (1658 HK) as of 27 Jun 2022.

---

<sup>1</sup> An associate is defined as (i) the spouse, or any minor child (natural or adopted) or minor step-child, of the analyst; (ii) the trustee of a trust of which the analyst, his spouse, minor child (natural or adopted) or minor step-child, is a beneficiary or discretionary object; or (iii) another person accustomed or obliged to act in accordance with the directions or instructions of the analyst.

<sup>2</sup> Financial interest is defined as interests that are commonly known financial interest, such as investment in the securities in respect of an issuer or a new listing applicant, or financial accommodation arrangement between the issuer or the new listing applicant and the firm or analysis. This term does not include commercial lending conducted at arm's length, or investments in any collective investment scheme other than an issuer or new listing applicant notwithstanding the fact that the scheme has investments in securities in respect of an issuer or a new listing applicant.

**Hong Kong Banking Sector**

---

**4. Compensation for investment banking services:**

DBS Bank Ltd, DBS HK, DBSVS, their subsidiaries and/or other affiliates of DBSVUSA have received compensation, within the past 12 months for investment banking services from Agricultural Bank of China Ltd (1288 HK), Bank of Communications Co Ltd (3328 HK), China CITIC Bank Corp Ltd (998 HK), China Everbright Bank Co Ltd (6818 HK), China Minsheng Banking Corp Ltd (1988 HK), Bank of Communications Co Ltd (601328 CH), China CITIC Bank Corp Ltd (601998 CH), China Everbright Bank Co Ltd (601818 CH), China Minsheng Banking Corp Ltd (600016 CH), Ping An Bank Co Ltd (000001 CH), BOC Hong Kong Holdings Ltd (2388 HK), Bank of East Asia Ltd/The (23 HK), Industrial & Commercial Bank of China Ltd (1398 HK) and Industrial & Commercial Bank of China Ltd (601398 CH) as of 31 May 2022.

DBS Bank Ltd, DBS HK, DBSVS, their subsidiaries and/or other affiliates of DBSVUSA, within the next 3 months, will receive or intend to seek compensation for investment banking services from Agricultural Bank of China Ltd (1288 HK), Bank of Communications Co Ltd (3328 HK), China Merchants Bank Co Ltd (3968 HK), China CITIC Bank Corp Ltd (998 HK), China Everbright Bank Co Ltd (6818 HK), China Minsheng Banking Corp Ltd (1988 HK), Bank of Communications Co Ltd (601328 CH), China Merchants Bank Co Ltd (600036 CH), China CITIC Bank Corp Ltd (601998 CH), China Everbright Bank Co Ltd (601818 CH), China Minsheng Banking Corp Ltd (600016 CH), Bank of Shanghai Co Ltd (601229 CH), Ping An Bank Co Ltd (000001 CH), BOC Hong Kong Holdings Ltd (2388 HK), Bank of East Asia Ltd/The (23 HK), RHB Bank Bhd (RHBANK MK), Bank of America Corp (BAC US), Citigroup Inc (C US), Industrial & Commercial Bank of China Ltd (1398 HK) and Industrial & Commercial Bank of China Ltd (601398 CH) as of 31 May 2022.


**5. DBS Bank Ltd, DBS HK, DBSVS, their subsidiaries and/or other affiliates of DBSVUSA have managed or co-managed a public offering of securities for Agricultural Bank of China Ltd (1288 HK), China Everbright Bank Co Ltd (6818 HK), Industrial & Commercial Bank of China Ltd (1398 HK) and Industrial & Commercial Bank of China Ltd (601398 CH) in the past 12 months, as of 31 May 2022.**

DBSVUSA does not have its own investment banking or research department, nor has it participated in any public offering of securities as a manager or co-manager or in any other investment banking transaction in the past twelve months. Any US persons wishing to obtain further information, including any clarification on disclosures in this disclaimer, or to effect a transaction in any security discussed in this document should contact DBSVUSA exclusively.

**6. Disclosure of previous investment recommendation produced:**

DBS Bank Ltd, DBSVS, DBS HK, their subsidiaries and/or other affiliates of DBSVUSA may have published other investment recommendations in respect of the same securities / instruments recommended in this research report during the preceding 12 months. Please contact the primary analyst listed on page 1 of this report to view previous investment recommendations published by DBS Bank Ltd, DBS HK, DBSVS, their subsidiaries and/or other affiliates of DBSVUSA in the preceding 12 months.

RESTRICTIONS ON DISTRIBUTION

<p><b>General</b></p>	<p>This report is not directed to, or intended for distribution to or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction where such distribution, publication, availability or use would be contrary to law or regulation.</p>
<p><b>Australia</b></p>	<p>This report is being distributed in Australia by DBS Bank Ltd, DBSVS or DBSV HK. DBS Bank Ltd holds Australian Financial Services Licence no. 475946.</p> <p>DBS Bank Ltd, DBSVS and DBSV HK are exempted from the requirement to hold an Australian Financial Services Licence under the Corporation Act 2001 ("CA") in respect of financial services provided to the recipients. Both DBS Bank Ltd and DBSVS are regulated by the Monetary Authority of Singapore under the laws of Singapore, and DBSV HK is regulated by the Hong Kong Securities and Futures Commission under the laws of Hong Kong, which differ from Australian laws.</p> <p>Distribution of this report is intended only for "wholesale investors" within the meaning of the CA.</p>
<p><b>Hong Kong</b></p>	<p>This report is being distributed in Hong Kong by DBS Bank Ltd, DBS Bank (Hong Kong) Limited and DBS Vickers (Hong Kong) Limited, all of which are registered with or licensed by the Hong Kong Securities and Futures Commission to carry out the regulated activity of advising on securities. DBS Bank Ltd., Hong Kong Branch is a limited liability company incorporated in Singapore.</p>
<p><b>Indonesia</b></p>	<p>This report is being distributed in Indonesia by PT DBS Vickers Sekuritas Indonesia.</p>
<p><b>Malaysia</b></p>	<p>This report is distributed in Malaysia by AllianceDBS Research Sdn Bhd ("ADBRSR"). Recipients of this report, received from ADBRSR are to contact the undersigned at 603-2604 3333 in respect of any matters arising from or in connection with this report. In addition to the General Disclosure/Disclaimer found at the preceding page, recipients of this report are advised that ADBRSR (the preparer of this report), its holding company Alliance Investment Bank Berhad, their respective connected and associated corporations, affiliates, their directors, officers, employees, agents and parties related or associated with any of them may have positions in, and may effect transactions in the securities mentioned herein and may also perform or seek to perform broking, investment banking/corporate advisory and other services for the subject companies. They may also have received compensation and/or seek to obtain compensation for broking, investment banking/corporate advisory and other services from the subject companies.</p> <div style="text-align: right;">   Wong Ming Tek, Executive Director, ADBRSR </div>
<p><b>Singapore</b></p>	<p>This report is distributed in Singapore by DBS Bank Ltd (Company Regn. No. 196800306E) or DBSVS (Company Regn No. 198600294G), both of which are Exempt Financial Advisers as defined in the Financial Advisers Act and regulated by the Monetary Authority of Singapore. DBS Bank Ltd and/or DBSVS, may distribute reports produced by its respective foreign entities, affiliates or other foreign research houses pursuant to an arrangement under Regulation 32C of the Financial Advisers Regulations. Where the report is distributed in Singapore to a person who is not an Accredited Investor, Expert Investor or an Institutional Investor, DBS Bank Ltd accepts legal responsibility for the contents of the report to such persons only to the extent required by law. Singapore recipients should contact DBS Bank Ltd at 6878 8888 for matters arising from, or in connection with the report.</p>
<p><b>Thailand</b></p>	<p>This report is being distributed in Thailand by DBS Vickers Securities (Thailand) Co Ltd.</p> <p>For any query regarding the materials herein, please contact [Chanpen Sirithanarattanukul] at [research@th.dbs.com]</p>
<p><b>United Kingdom</b></p>	<p>This report is produced by DBS HK which is regulated by the Hong Kong Monetary Authority</p> <p>This report is disseminated in the United Kingdom by DBS Bank Ltd, London Branch ("DBS UK"). DBS Bank Ltd is regulated by the Monetary Authority of Singapore. DBS UK is authorised by the Prudential Regulation Authority and is subject to regulation by the Financial Conduct Authority and limited regulation by the Prudential Regulation Authority. Details about the extent of our regulation by the Prudential Regulation Authority are available from us on request.</p> <p>In respect of the United Kingdom, this report is solely intended for the clients of DBS UK, its respective connected and associated corporations and affiliates only and no part of this document may be (i) copied, photocopied or duplicated in any form or by any means or (ii) redistributed without the prior written consent of DBS UK. This communication is directed at persons having professional experience in matters relating to investments. Any investment activity following from this communication will only be engaged in with such persons. Persons who do not have professional experience in matters relating to investments should not rely on this communication.</p>

<p><b>Dubai International Financial Centre</b></p>	<p>This communication is provided to you as a Professional Client or Market Counterparty as defined in the DFSA Rulebook Conduct of Business Module (the "COB Module"), and should not be relied upon or acted on by any person which does not meet the criteria to be classified as a Professional Client or Market Counterparty under the DFSA rules.</p> <p>This communication is from the branch of DBS Bank Ltd operating in the Dubai International Financial Centre (the "DIFC") under the trading name "DBS Bank Ltd. (DIFC Branch)" ("DBS DIFC"), registered with the DIFC Registrar of Companies under number 156 and having its registered office at units 608 - 610, 6th Floor, Gate Precinct Building 5, PO Box 506538, DIFC, Dubai, United Arab Emirates.</p> <p>DBS DIFC is regulated by the Dubai Financial Services Authority (the "DFSA") with a DFSA reference number F000164. For more information on DBS DIFC and its affiliates, please see <a href="http://www.dbs.com/ae/our--network/default.page">http://www.dbs.com/ae/our--network/default.page</a>.</p> <p>Where this communication contains a research report, this research report is prepared by the entity referred to therein, which may be DBS Bank Ltd or a third party, and is provided to you by DBS DIFC. The research report has not been reviewed or authorised by the DFSA. Such research report is distributed on the express understanding that, whilst the information contained within is believed to be reliable, the information has not been independently verified by DBS DIFC.</p> <p>Unless otherwise indicated, this communication does not constitute an "Offer of Securities to the Public" as defined under Article 12 of the Markets Law (DIFC Law No.1 of 2012) or an "Offer of a Unit of a Fund" as defined under Article 19(2) of the Collective Investment Law (DIFC Law No.2 of 2010).</p> <p>The DFSA has no responsibility for reviewing or verifying this communication or any associated documents in connection with this investment and it is not subject to any form of regulation or approval by the DFSA. Accordingly, the DFSA has not approved this communication or any other associated documents in connection with this investment nor taken any steps to verify the information set out in this communication or any associated documents, and has no responsibility for them. The DFSA has not assessed the suitability of any investments to which the communication relates and, in respect of any Islamic investments (or other investments identified to be Shari'a compliant), neither we nor the DFSA has determined whether they are Shari'a compliant in any way.</p> <p>Any investments which this communication relates to may be illiquid and/or subject to restrictions on their resale. Prospective purchasers should conduct their own due diligence on any investments. If you do not understand the contents of this document you should consult an authorised financial adviser.</p>
<p><b>United States</b></p>	<p>This report was prepared by DBS HK. DBSVUSA did not participate in its preparation. The research analyst(s) named on this report are not registered as research analysts with FINRA and are not associated persons of DBSVUSA. The research analyst(s) are not subject to FINRA Rule 2241 restrictions on analyst compensation, communications with a subject company, public appearances and trading securities held by a research analyst. This report is being distributed in the United States by DBSVUSA, which accepts responsibility for its contents. This report may only be distributed to Major U.S. Institutional Investors (as defined in SEC Rule 15a-6) and to such other institutional investors and qualified persons as DBSVUSA may authorize. Any U.S. person receiving this report who wishes to effect transactions in any securities referred to herein should contact DBSVUSA directly and not its affiliate.</p>
<p><b>Other jurisdictions</b></p>	<p>In any other jurisdictions, except if otherwise restricted by laws or regulations, this report is intended only for qualified, professional, institutional or sophisticated investors as defined in the laws and regulations of such jurisdictions.</p>

**DBS Bank (Hong Kong) Limited**

13<sup>th</sup> Floor One Island East, 18 Westlands Road, Quarry Bay, Hong Kong

Tel: (852) 3668-4181, Fax: (852) 2521-1812

#### DBS Regional Research Offices

##### HONG KONG

DBS Bank (Hong Kong) Ltd

Contact: Dennis Lam

13th Floor One Island East,

18 Westlands Road, Quarry Bay, Hong Kong

Tel: 852 3668 4181

Fax: 852 2521 1812

e-mail: [dbsvhk@dbs.com](mailto:dbsvhk@dbs.com)

##### SINGAPORE

DBS Bank Ltd

Contact: Paul Yong

12 Marina Boulevard,

Marina Bay Financial Centre Tower 3

Singapore 018982

Tel: 65 6878 8888

e-mail: [groupresearch@dbs.com](mailto:groupresearch@dbs.com)

Company Regn. No. 196800306E

##### INDONESIA

PT DBS Vickers Sekuritas (Indonesia)

Contact: Maynard Priajaya Arif

DBS Bank Tower

Ciputra World 1, 32/F

Jl. Prof. Dr. Satrio Kav. 3-5

Jakarta 12940, Indonesia

Tel: 62 21 3003 4900

Fax: 6221 3003 4943

e-mail: [indonesiaresearch@dbs.com](mailto:indonesiaresearch@dbs.com)

##### THAILAND

DBS Vickers Securities (Thailand) Co Ltd

Contact: Chanpen Sirithanarattanakul

989 Siam Piwat Tower Building,

9th, 14th-15th Floor

Rama 1 Road, Pathumwan,

Bangkok Thailand 10330

Tel. 66 2 857 7831

Fax: 66 2 658 1269

e-mail: [research@th.dbs.com](mailto:research@th.dbs.com)

Company Regn. No 0105539127012

Securities and Exchange Commission, Thailand