Sector Note

Financial Services | China | June 24, 2022

Banks

Corporate NPLs: Views from another angle

- We estimate that China's 'stressed' corporate NPL ratio rose for the fifth consecutive quarter in 1Q22 to 10.8% of corporate loans (4Q21: 9.7%).
- This estimated 'stressed' corporate NPL ratio is rising at the fastest rate since 2015/2016.
- A combination of risk aversion and weak underlying credit demand continues to result in quality loan remaining near multi-year lows, in our view.
- Retain sector Neutral. Top pick remains CMB, BOC, PAB & CITIC.

1Q22 'stressed' corporate NPL ratio

A common question we get asked by investors who have doubts over the reported non-performing loan (NPL) ratios of China banks is: What is the 'true' NPL ratio? Our bottom-up independent assessment of listed corporate's 'stressed' corporate NPL ratio suggests it was 10.8% in 1Q22 vs. 4Q21's 9.7% (Fig. 1), with its sixth month rise the largest since 2015-2016 (Fig 7). This metric has been rising for three consecutive quarters.

A superior metric to reported NPL ratios in our view

'Stressed' corporate NPL ratio is also a superior metric to the corporate NPL ratios reported by banks, in our view, as it is a gross metric, rather than a net NPL ratio (i.e. net of write-offs, transfers, NPL sales and securitisation). Hence, it gives a better indication of NPL formation rates. It also provides an alternative asset quality indicator, given investor scepticism over the low bank-reported NPL ratios, especially relating to corporate loans, which was only 2.07% and fell both hoh and yoy in FY21 (Fig 3). Our metric is a function of both leverage ratios and debt serviceability ratios (i.e. interest expense over EBIT). It is derived from a bottom-up analysis of the fundamentals of over 3,700 listed A-share non-financial companies (see *Peering through the corporate looking glass*, 11 May 2021).

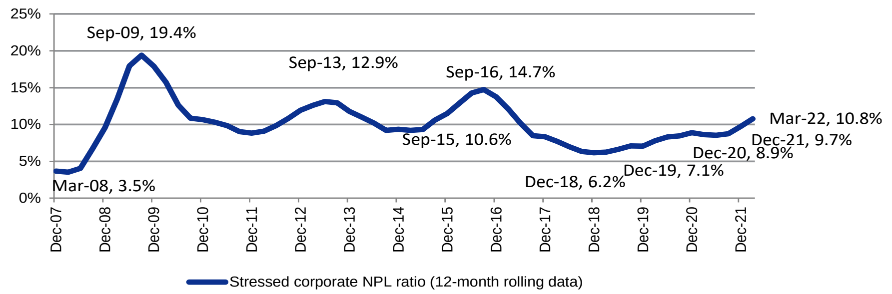
A useful early warning of potential NPL (e.g. property developers)

We believe this metric can be a useful early-warning indicator as to which industries are facing asset quality stress. For example, our estimate of the 'stressed' corporate NPL ratio for property developers rose from 6.5% in Dec 2019 to 9.3% in Dec 2020 to 18% in Dec 2021 and 18.2% in Mar 2022 (Fig 8) (See *Corporate credit quality: Under the X-ray*, 11 May 2020), which would have been a useful predictor of the rise of NPL ratios the banks reported within this segment in FY21. The transportation, storage and postal services sector is another industry that is still experiencing elevated stress from the impact of the Covid-19 pandemic. Both the Construction and the Production & supply of electricity, heat, gas & water industries seem to be experiencing notable rises in asset quality stress.

Top picks: CMB-H, PAB, CITIC-H & BOC-H

We maintain a Neutral rating on China's banking sector. We value the banks using a stress-test adjusted GGM. Upside/downside risks: better-/worse-than-expected economy and increase/decrease in policy risks.

Figure 1: Our estimate of the 'stressed' corporate NPL ratio, based on an analysis of the financials of over 3,700 listed non-financial A-share companies



SOURCES: CGS-CIMB RESEARCH ESTIMATES, WIND

China

Neutral *(no change)*

Highlighted Companies

Bank of China
ADD, TP HK$4.20, HK$3.09 close

We like BOC's exposure to a rising US rate hike cycle via its HK subsidiary. We also like its inexpensive valuations (lowest of the big four banks FY22F P/BV ratio) and its high FY22F dividend yield (highest of big four banks).

China Merchants Bank
ADD, TP HK$84.10, HK$49.50 close

CMB is our top sector pick. We believe its ROE and better-than-peers net profit will be sustained, driven by its retail banking operations. We think continued rising ROE under the new president could be a re-rating catalyst.

Ping An Bank
ADD, TP Rmb22.70, Rmb14.20 close

PAB is a key beneficiary of the ongoing recovery in credit card asset quality. It could also benefit notably from any loss of market share for fintech players given a stricter fintech regulatory environment.

Summary Valuation Metrics

P/E (x)	Dec-22F	Dec-23F	Dec-24F
Bank of China	3.49	3.17	2.86
China Merchants Bank	7.85	6.61	5.55
Ping An Bank	6.99	5.89	4.88
P/BV (x)	**Dec-22F**	**Dec-23F**	**Dec-24F**
Bank of China	0.38	0.35	0.32
China Merchants Bank	1.29	1.13	0.98
Ping An Bank	0.76	0.69	0.61
Dividend Yield	**Dec-22F**	**Dec-23F**	**Dec-24F**
Bank of China	9.04%	9.95%	11.06%
China Merchants Bank	4.21%	4.99%	5.95%
Ping An Bank	1.89%	2.24%	2.71%

Analyst(s)

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Figure 2: China banks valuation table (H-share and A-share banks)

Company	Ticker	Rating	Mkt cap (US$ bn)	Price (Lcy)	Target price (Lcy)	Upside/ Downside	P/BV (x) FY22F	P/BV (x) FY23F	P/E (x) FY22F	P/E (x) FY23F	P/PPOP (x) FY22F	P/PPOP (x) FY23F	Dividend yield FY22F	Dividend yield FY23F	ROE(%) FY22F	ROE(%) FY23F
ICBC	1398 HK	Add	249.0	4.53	5.90	30%	0.43	0.39	3.7	3.4	2.1	1.9	8.3	9.0	12.0	12.1
CCB	0939 HK	Add	177.3	5.59	8.00	43%	0.43	0.40	3.7	3.4	2.0	1.8	8.3	9.1	12.3	12.3
BOC	3988 HK	Add	138.1	3.09	4.20	36%	0.37	0.34	3.4	3.1	1.9	1.8	9.2	10.1	11.2	11.3
ABC	1288 HK	Add	161.0	2.91	4.40	51%	0.38	0.35	3.5	3.2	1.7	1.6	9.1	10.0	11.5	11.6
BOCOM	3328 HK	Hold	54.1	5.25	5.30	1%	0.39	0.36	3.7	3.3	1.9	1.7	8.7	9.6	10.9	11.1
CMB	3968 HK	Add	147.1	49.50	84.10	70%	1.27	1.11	7.7	6.5	4.5	4.1	4.3	5.1	17.4	18.2
CITIC	0998 HK	Add	33.0	3.83	4.80	25%	0.29	0.26	2.7	2.4	1.0	1.0	10.3	11.7	10.9	11.4
MSB	1988 HK	Hold	22.7	2.79	2.70	-3%	0.20	0.19	3.1	2.6	1.0	0.9	9.8	11.4	6.8	7.5
CQRCB	3618 HK	Add	6.0	2.84	4.10	44%	0.25	0.23	2.4	2.1	1.1	1.0	12.3	14.0	10.6	11.1
H-share weighted average							0.55	0.50	4.3	3.8	2.4	2.2	8.0	8.8	12.6	12.9
ICBC - A	601398 CH	Add	249.0	4.77	5.10	7%	0.54	0.49	4.7	4.3	2.6	2.4	6.6	7.2	12.0	12.1
CCB - A	601939 CH	Add	177.3	6.04	7.10	18%	0.56	0.51	4.7	4.3	2.6	2.4	6.5	7.1	12.3	12.3
BOC - A	601988 CH	Add	138.1	3.25	3.80	17%	0.46	0.43	4.3	3.9	2.4	2.2	7.3	8.1	11.2	11.3
ABC - A	601288 CH	Add	161.0	3.02	3.90	29%	0.47	0.44	4.3	3.9	2.1	2.0	7.4	8.1	11.5	11.6
BOCOM - A	601328 CH	Hold	54.1	4.97	4.80	-3%	0.43	0.40	4.1	3.8	2.1	2.0	7.8	8.5	10.9	11.1
CMB - A	600036 CH	Add	147.1	40.14	71.50	78%	1.22	1.07	7.4	6.3	4.4	4.0	4.4	5.3	17.4	18.2
CITIC - A	601998 CH	Add	33.0	4.80	4.90	2%	0.43	0.39	4.1	3.6	1.5	1.4	6.9	7.8	10.9	11.4
MSB - A	600016 CH	Reduce	22.7	3.93	2.50	-36%	0.34	0.32	5.1	4.4	1.6	1.5	5.9	6.8	6.8	7.5
PAB - A	000001 CH	Add	43.6	14.20	22.70	60%	0.76	0.69	7.0	5.9	2.1	1.9	1.9	2.2	11.5	12.3
CQRCB - A	601077 CH	Add	6.0	3.96	4.50	14%	0.41	0.38	4.0	3.5	1.9	1.7	7.4	8.5	10.6	11.1
A-share weighted average							0.63	0.57	5.1	4.6	2.7	2.5	6.2	6.9	12.5	12.8
Combined sector weighted average							0.59	0.54	4.7	4.2	2.5	2.3	7.1	7.9	12.6	12.8

SOURCES: CGS-CIMB RESEARCH ESTIMATES, BLOOMBERG

*ICBC: INDUSTRIAL AND COMMERCIAL BANK OF CHINA; CCB: CHINA CONSTRUCTION BANK; BOC: BANK OF CHINA; ABC: AGRICULTURAL BANK OF CHINA; BOCOM: BANK OF COMMUNICATIONS; CMB: CHINA MERCHANTS BANK; CITIC: CHINA CITIC BANK; MSB: CHINA MINSHENG BANK; CQRCB: CHONGQING RURAL COMMERCIAL BANK

DATA AS OF 23 JUN 2022

Corporates NPLs: A view from another angle

Corporate credit quality stress amidst a pandemic

Asset quality, in our view, has been one of the most commonly raised concerns by investors in respect to China banks, particularly on corporate credit quality. Investors have told us they believe the NPL ratios reported by banks are too low, leading them to wonder what the 'true' level of corporate NPL ratios could be.

Several reasons exist for China's low reported NPL ratios, in our view. These include, among others: i) implicit state backing for certain corporate loans, especially those taken by state-owned enterprises, ii) loan evergreening, iii) NPL recognition standards that have not always been strictly quantitatively based, iv) the presence of a loan quota system and an active central bank that makes it less likely for a credit crunch to occur vs. other countries (note that credit crunches tend to exacerbate asset quality crises), v) the existence of regulatory NPL tolerance levels, and vi) a heavy policymaker and bank management focus on keeping reported NPL ratios low via means such as active NPL resolution techniques, which include write-offs, NPL sales and securitisation.

We believe that scepticism tends to revolve around the reported statistics of corporate NPL ratio numbers (which averaged 2.07% for the banks under our coverage in 2H21, -12bp hoh and -22bp yoy) (Fig 3), rather than the statistics of consumer (including mortgages) NPL ratios.

Figure 3: Corporate NPL ratios of the China banks

(%)	1H17	2H17	1H18	2H18	1H19	2H19	1H20	2H20	1H21	2H21
ICBC	2.15	1.97	2.00	2.07	2.00	2.02	2.09	2.29	2.24	2.09
CCB	2.53	2.58	2.52	2.60	2.50	2.47	2.47	2.56	2.49	2.27
BOC	2.29	2.48	2.49	2.54	2.52	2.43	2.38	2.42	2.08	2.20
ABC	3.09	2.54	2.34	2.37	2.13	2.10	2.12	2.37	2.31	2.22
BOCOM	1.64	1.67	1.69	1.87	1.63	1.78	2.04	2.13	2.05	1.88
CMB	2.71	2.50	2.30	2.13	2.00	1.84	1.70	1.58	1.57	1.24
CITIC	2.08	2.27	2.67	2.61	2.64	2.60	2.71	2.42	2.09	2.05
MSB	1.49	1.52	1.37	1.54	1.54	1.36	1.49	1.72	1.92	1.89
PAB	2.10	2.25	2.50	2.82	2.71	2.54	2.01	1.39	1.12	0.82
CQRCB	0.82	0.96	1.50	1.59	1.46	1.69	1.79	1.94	1.97	1.95
Big four banks	2.49	2.37	2.32	2.35	2.24	2.22	2.24	2.40	2.29	2.19
Mid-size banks	2.00	1.98	2.06	2.09	1.98	1.94	2.00	1.95	1.87	1.71
Sector weighted average	2.37	2.27	2.24	2.28	2.17	2.14	2.18	2.29	2.19	2.07

c SOURCE: CGS-CIMB RESEARCH, COMPANY REPORTS

Figure 4: Mortgage NPL ratios of the China banks

(%)	1H17	2H17	1H18	2H18	1H19	2H19	1H20	2H20	1H21	2H21
ICBC	n.a.	n.a.	n.a.	n.a.	n.a.	0.23	0.29	0.28	0.24	0.24
CCB	0.28	0.24	0.25	0.24	0.27	0.24	0.25	0.19	0.20	0.20
BOC	0.36	0.35	0.33	0.32	0.31	0.29	0.34	0.32	0.31	0.27
ABC	0.36	0.36	0.29	0.31	0.26	0.30	0.32	0.38	0.32	0.36
BOCOM	n.a.	n.a.	n.a.	0.00	n.a.	0.36	0.40	0.37	0.34	0.34
CMB	0.34	0.33	0.27	0.28	0.25	0.25	0.25	0.29	0.25	0.28
CITIC	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
MSB	n.a.	n.a.	n.a.	n.a.	n.a.	0.21	n.a.	0.22	0.22	0.26
PAB	0.09	0.08	0.09	0.09	0.15	0.30	0.42	0.31	0.31	0.34
CQRCB	0.73	0.61	0.51	0.43	0.40	0.33	0.32	0.31	0.28	0.46
Big four banks	0.33	0.31	0.29	0.28	0.28	0.26	0.30	0.29	0.26	0.26
Mid-size banks	0.31	0.29	0.24	0.31	0.23	0.31	0.28	0.33	0.30	0.31
Sector weighted average	0.33	0.31	0.28	0.29	0.28	0.27	0.30	0.29	0.27	0.27

SOURCE: CGS-CIMB RESEARCH, COMPANY

In order to address investor questions on what the corporate NPL ratio could be if the abovementioned six reasons did not exist, we go back to the concept of a 'stressed' corporate NPL ratio that we discussed in our report *Corporate credit quality: Under the X-ray* (dated 11 May 2020).

Our computation of 'stressed' corporate NPL ratio is a superior metric to the corporate NPL ratios reported by banks, in our view, as this stressed corporate NPL ratio metric is a gross metric, rather than a net NPL ratio (i.e. net of write-offs, transfers, NPL sales and securitisation). This thus gives a better indication of NPL formation rates. It also provides an alternative asset quality indicator, given the investor scepticism over the low bank-reported NPL ratios, especially relating to corporate loans

Unlike reported NPL ratios, our 'stressed' corporate NPL ratio is also unaffected by policies to delay NPL recognition under the current Covid-19 outbreak, which is important for investors who wish to understand the trends in corporate credit quality if NPL recognition standards were not relaxed.

Our ‘stressed’ corporate NPL ratio estimate is derived from a bottom-up analysis of the fundamentals of over 3,700 listed A-share non-financial companies.

Somewhat akin to how credit rating agencies assess credit quality, we have applied two key credit analytic screens to determine whether a corporate is likely to default.

The first screen is a leverage ratio test, whereby a company is assumed to be at risk of default if its net debt-to-equity ratio exceeds 2x (or 3x for the utilities sector).

Our second screen is a debt serviceability (or an interest coverage ratio) test, whereby a company is assumed to be at risk of default if its interest expense exceeds its earnings before interest expense and tax (EBIT).

The mix of corporates failing one or both of these screens was 10.8% in 1Q22 (4Q21: 9.7%, 3Q21: 8.7%). This is our estimate for the ‘stressed’ corporate NPL ratio (Fig. 5).

This is obviously much higher than the reported corporate NPL ratios of the banks (averaged 2.07% in FY21 for the banks under our coverage), as it assumes that the previously mentioned six reasons do not exist.

Given that corporate loans comprise, on average, 51.3% of the overall loan portfolio for the China banks under our coverage, with mortgages comprising 27.3%, discounted bills comprising 3.7%, and other personal loans (non-mortgage consumer and personal business loans) comprising the other 17.7%, and given that mortgage and non-mortgage retail NPL ratios are about 0.27% and 2.07%, respectively in FY21, we thus estimate that the ‘stressed’ NPL ratio of the entire loan portfolio of the China banking system was 5.9% as of Mar 2022F.

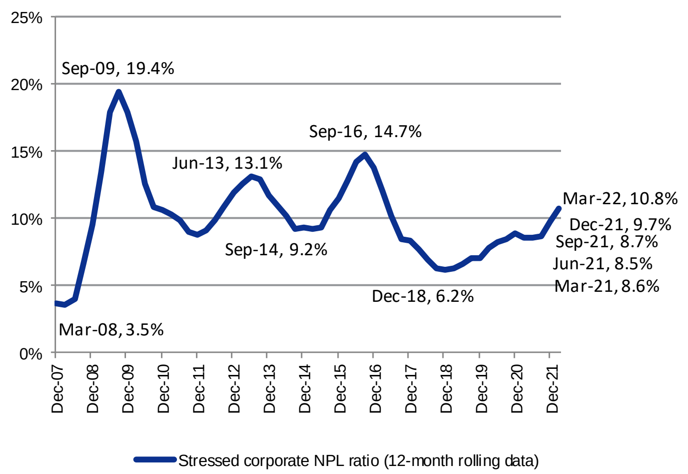
Investors should note that this ‘stressed’ corporate NPL ratio estimate of 10.8% in 1Q22 for the entire system, which is based on the analysis of financial statements of over 3,700 listed A-share non-financial corporates, is arguably lower for the listed banks under our coverage. This is because our coverage tends to focus on the larger banks, where we believe credit underwriting standards are better.

How does the 1Q22 ‘stressed’ corporate NPL ratio compare to history? To smooth out volatility in this metric (due to seasonality), this metric is computed on a 12-month rolling basis, with 1Q22’s 12-month-rolling ‘stressed’ corporate NPL ratio of 10.8% higher than 4Q21’s 9.7%

While this metric has risen for three consecutive quarters, it is still well below past peaks of 19.4% in Sep 2009, 12.9% in Sep 2013 and 14.7% in Sep 2016 (Fig 5).

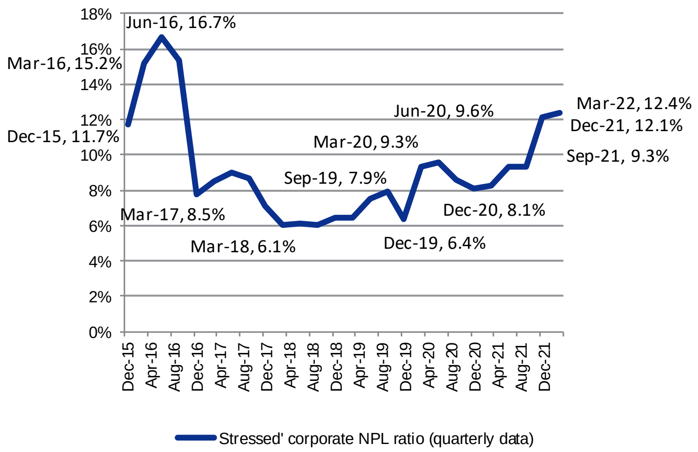
We believe that a combination of the US-China trade war, the impact of the Covid-19 pandemic, and a weaker China macroeconomy has driven this estimate of the ‘stressed’ corporate NPL ratio from its Dec 2018’s lows of 6.2%.

Figure 5: Our estimate of the 'stressed' corporate NPL ratio (12-month rolling), based on an analysis of the financials of over 3,700 listed non-financial A-share companies



SOURCES: CGS-CIMB RESEARCH ESTIMATES, WIND

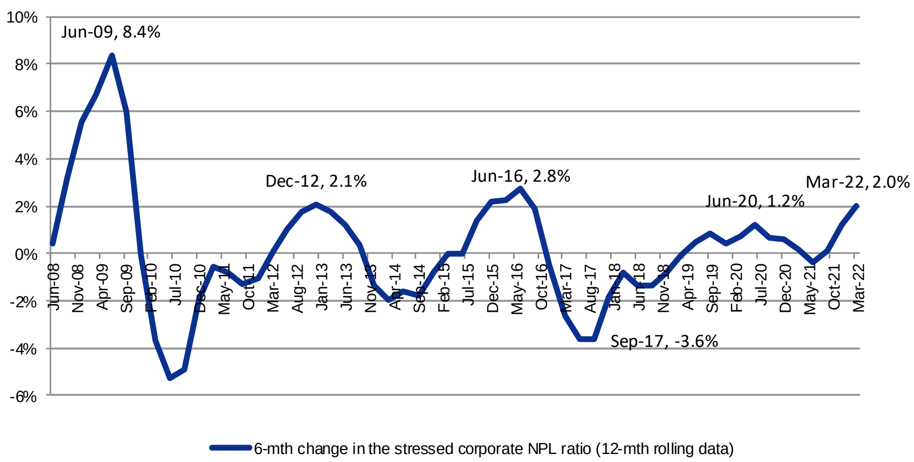
Figure 6: Our estimate of the quarterly 'stressed' corporate NPL ratio, based on an analysis of the financials of over 3,700 listed non-financial A-share companies



SOURCES: CGS-CIMB RESEARCH ESTIMATES, WIND

The current rate of deterioration, as measured by a 6-month change (we use six months, as the China banks typically only disclosure detailed corporate asset quality metrics on a half yearly basis), is the worst since 2016 (Fig 7).

Figure 7: 6-mth change in the stressed corporate NPL ratio (12-mth rolling data)



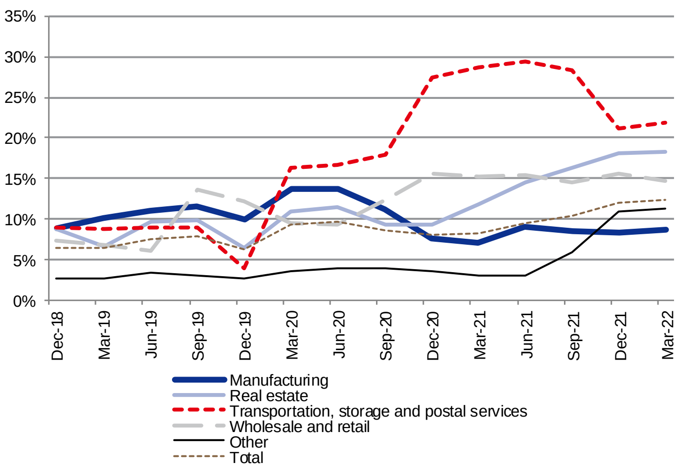
SOURCES: CGS-CIMB RESEARCH ESTIMATES, WIND

We believe this metric can be a useful early warning on which industries are facing asset quality stress. For example, our estimate of the 'stressed' corporate NPL ratio for property developers rose from 6.5% in Dec 2019 to 9.3% in Dec 2020 to 18% in Dec 2021 and 18.2% in Mar 2022 (Fig 8) (See *Corporate credit quality: Under the X-ray*, dated 11 May 2020), which would have been a useful predictor of the rise of NPL ratios the banks reported within this segment in FY21.

The transportation, storage and postal services industry is another industry that is still experiencing elevated stress as Covid-related impacts continue (this segment includes airlines). Both the Construction and the Production & supply of electricity, heat, gas & water industries (these are industries classified within the 'Other' category] seem to be experiencing notable rises in asset quality stress.

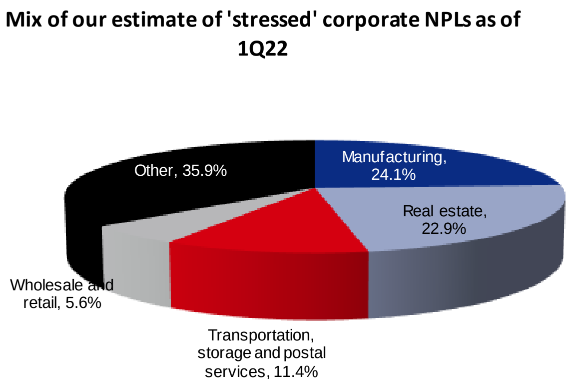
As of 1Q22, the majority of 'stressed' corporate NPLs come from the real estate, manufacturing and 'Other' industries (Fig 9).

Figure 8: Our estimation of the 'stressed' corporate NPL ratio by industry, as at 1Q22



SOURCES: CGS-CIMB RESEARCH ESTIMATES, WIND

Figure 9: Mix of our estimation of 'stressed' corporate NPLs



SOURCES: CGS-CIMB RESEARCH ESTIMATES, WIND

We are a bit concerned that of the two credit screens that drive our calculation of the 'stressed' corporate NPL ratio, the debt serviceability screen is showing a sharper rise (Fig 10). This suggests corporate profitability could be under pressure, with consequent difficulties for debt repayment.

Figure 10: Stressed' corporate NPL ratio by industry under the leverage ratio and the debt serviceability credit screen

'Stressed' corporate NPL ratio under the leverage ratio credit screen

	Mar-20	Jun-20	Sep-20	Dec-20	Mar-21	Jun-21	Sep-21	Dec-21	Mar-22
Manufacturing	10.5%	10.2%	7.7%	5.2%	4.9%	5.9%	4.1%	4.0%	3.8%
Real estate	12.1%	12.6%	8.8%	8.2%	7.6%	13.4%	15.9%	14.6%	14.6%
Transportation, storage and postal services	6.8%	6.4%	6.2%	17.1%	17.2%	22.3%	19.7%	14.2%	13.6%
Wholesale and retail	4.3%	4.3%	4.0%	16.9%	17.4%	16.9%	15.2%	15.7%	14.5%
Other	3.0%	3.1%	3.0%	3.0%	2.0%	2.0%	2.1%	2.3%	2.5%
Total	7.4%	7.4%	5.9%	6.2%	5.7%	7.4%	6.9%	6.3%	6.1%

'Stressed' corporate NPL ratio under the debt serviceability credit screen

	Mar-20	Jun-20	Sep-20	Dec-20	Mar-21	Jun-21	Sep-21	Dec-21	Mar-22
Manufacturing	17.1%	17.4%	14.7%	10.2%	9.3%	12.1%	12.8%	12.5%	13.6%
Real estate	9.7%	10.2%	10.0%	10.4%	16.0%	15.8%	16.8%	21.5%	21.9%
Transportation, storage and postal services	25.8%	27.0%	29.6%	37.9%	40.3%	36.4%	37.0%	28.1%	30.0%
Wholesale and retail	14.7%	14.3%	20.9%	14.5%	13.1%	14.1%	13.7%	15.5%	15.0%
Other	4.1%	4.8%	4.8%	4.2%	4.0%	4.3%	9.6%	19.7%	20.2%
Total	11.2%	11.8%	11.3%	10.0%	10.7%	11.6%	13.9%	17.9%	18.6%

SOURCES: CGS-CIMB RESEARCH ESTIMATES, WIND

Another important question that needs to be asked is: what is the outlook for our 'stressed' corporate NPL ratio estimate?

To answer this, we employ the concept of a 'stressed' special mention loan (SML) ratio for corporates. Essentially, SMLs are loans that are exhibiting some signs of weakness in credit quality, albeit not severe enough for the loan to be classified as an NPL.

We estimate a 'stressed' SML ratio of 0.9% in 1Q22 for corporates within the entire system, down marginally from 4Q21's 0.8%.

Our SML ratio analysis applies the same two credit screens, albeit with slightly looser thresholds. These thresholds are: i) a corporate leverage ratio (net debt-to-equity) of 1.8x-2.0x (or 2.8x-3.0x for the utilities sector), and ii) an interest coverage ratio (i.e. EBIT/interest expense) of between 1x and 1.25x.

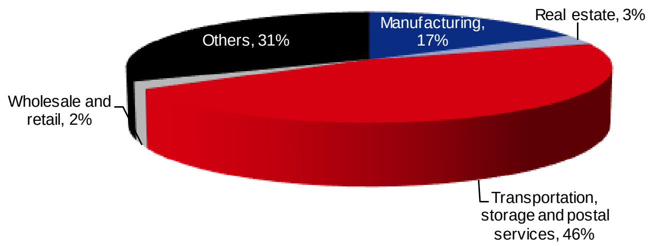
Note that a corporate leverage ratio of over 2.0x (3.0x for the utilities sector) and an interest coverage ratio of below 1x are captured as 'stressed' NPL and not 'stressed' SML under our analysis. This results in a 'stressed' SML ratio of 0.9% in 1Q22, with the transportation, storage and postal services sector estimated to have the highest 'stressed' SML ratio in 1Q22 of 6.6% (Fig. 11).

Figure 11: Our estimated 'stressed' special mention loan (SML) ratio by industry in 1Q22

	Estimated 4Q21 'stressed' SML ratio	Estimated 1Q22 'stressed' SML ratio
Manufacturing	0.7%	0.3%
Real estate	0.3%	0.2%
Transportation, storage and postal services	2.8%	6.6%
Wholesale and retail	0.1%	0.4%
Others	0.7%	0.7%
Total	0.8%	0.9%

SOURCES: CGS-CIMB RESEARCH ESTIMATES, WIND

Figure 12: Distribution of SML under our base case scenario in 1Q22



SOURCES: CGS-CIMB RESEARCH ESTIMATES, WIND

Figure 13: SML ratio by industry under the interest coverage ratio screen

	Jun-20	Sep-20	Dec-20	Mar-21	Jun-21	Sep-21	Dec-21	Mar-22
Manufacturing	5.7%	3.2%	2.2%	1.1%	1.2%	0.9%	1.4%	0.7%
Real estate	0.2%	0.2%	0.1%	0.2%	0.1%	0.0%	0.0%	0.0%
Transportation, storage & postal services	0.9%	2.7%	2.7%	0.0%	0.0%	0.0%	1.3%	0.0%
Wholesale and retail	0.7%	0.0%	2.6%	0.6%	2.5%	3.8%	0.2%	0.8%
Others	1.5%	1.9%	1.5%	1.3%	0.7%	1.2%	1.3%	0.9%
Total	2.6%	2.0%	1.6%	0.9%	0.8%	0.9%	1.0%	0.6%

SOURCES: CGS-CIMB RESEARCH ESTIMATES, WIND

Figure 14: SML ratio by industry under the leverage ratio screen

	Jun-20	Sep-20	Dec-20	Mar-21	Jun-21	Sep-21	Dec-21	Mar-22
Manufacturing	1.8%	1.8%	0.6%	0.8%	0.0%	0.0%	0.0%	0.0%
Real estate	19.8%	20.4%	8.1%	8.5%	1.6%	2.0%	0.6%	0.4%
Transportation, storage & postal services	3.9%	0.0%	3.1%	2.8%	4.2%	3.9%	4.2%	13.3%
Wholesale and retail	10.8%	13.0%	2.9%	0.0%	2.9%	3.8%	0.0%	0.0%
Others	1.6%	1.9%	0.2%	0.5%	0.0%	0.1%	0.1%	0.6%
Total	4.9%	5.0%	2.8%	2.5%	1.3%	1.5%	0.6%	1.3%

SOURCES: CGS-CIMB RESEARCH ESTIMATES, WIND

Figure 15: Our estimated quarterly SML ratio under different scenarios of EBIT interest coverage, using 1Q22 data

	Estimated quarterly SML ratio
Interest coverage ratio at or below 1.1x, but above 1x	0.4%
Interest coverage ratio at or below 1.2x, but above 1x	0.6%
Interest coverage ratio at or below 1.25x, but above 1x	0.8%
Interest coverage ratio at or below 1.3x, but above 1x	1.3%
Interest coverage ratio at or below 1.4x, but above 1x	2.0%
Interest coverage ratio at or below 1.5x, but above 1x	2.4%

SOURCES: CGS-CIMB RESEARCH ESTIMATES, WIND

Figure 16: Our estimated quarterly SML ratio under different scenarios of net gearing, using 1Q22 data

	Estimated quarterly SML ratio
Net gearing ratio at or above 1.9x, but below 2x	0.1%
Net gearing ratio at or above 1.8x, but below 2x	0.7%
Net gearing ratio at or above 1.75x, but below 2x	1.2%
Net gearing ratio at or above 1.7x, but below 2x	1.9%
Net gearing ratio at or above 1.6x, but below 2x	3.2%
Net gearing ratio at or above 1.5x, but below 2x	4.9%

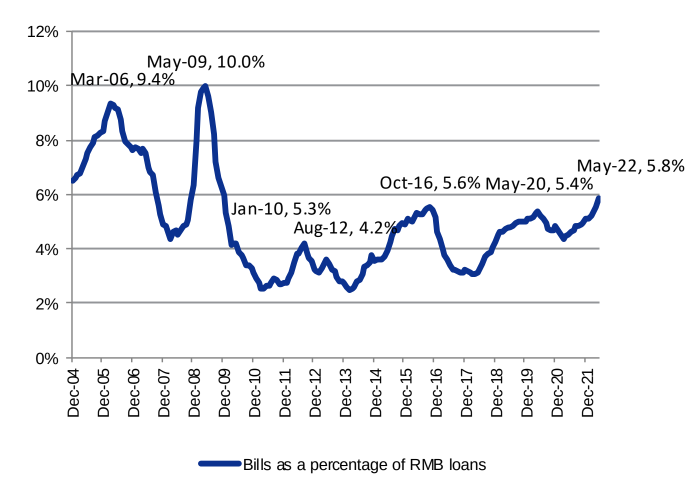
SOURCES: CGS-CIMB RESEARCH ESTIMATES, WIND

What could further deterioration of corporate credit quality indicators mean for bank lending going forward? If banks become more risk averse, they could then either require higher rates to compensate for the risk of lending or choose to shift their loan portfolio to lower-risk loan segments.

It is unlikely that banks could charge lower rates, given the People's Bank of China's (PBOC) stance of monetary policy loosening and the policymaker pressure on banks to lower loan yields to help the real economy.

With additional complicating factors such as reduced underlying credit demand, it is no surprise to see loan growth continue to fall to multi-year lows (Fig 18). It is also no surprise to see banks choosing to increasingly fill their loan quotas by bank bills, which in our view have virtually close to zero NPL ratios. Bank bills as a percentage of banks loans rose to 5.8% in May, higher than Oct 2016's 5.6% peak and the worst since the aftermath of 2008/2009's Global Financial Crisis (GFC) (Fig 17).

Figure 17: Bills as a percentage of Rmb loans across time



SOURCES: CGS-CIMB RESEARCH, COMPANY REPORTS

Figure 18: Rmb loan growth yoy in China (2004 – 2022 YTD)

SOURCE: CGS-CIMB RESEARCH, WIND

Given worsening corporate credit quality trends, should investors then be concerned about the outlook for the China banks? We think at this stage, there is little reason to be concerned, as provisioning buffers have been built up across time (Fig 19), which should help cushion the impact of worsening asset quality.

Figure 19: Provisioning coverage ratios (%)

(%)	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	1Q22
ICBC	296	257	207	156	137	154	176	199	181	206	210
CCB	271	268	222	151	150	171	208	227	213	240	246
BOC	236	230	189	154	164	159	182	183	178	187	188
ABC	326	367	287	189	173	208	252	289	261	293	308
BOCOM	251	214	179	156	151	155	173	172	144	167	167
CMB	352	266	233	179	180	262	358	427	438	484	463
CITIC	288	207	181	168	156	169	158	175	172	180	184
MSB	315	260	182	154	155	156	134	156	139	145	143
PAB	182	201	201	166	155	151	155	183	201	288	289
CQRCB	351	431	460	420	428	431	347	380	315	340	346
Big four banks	285	282	228	165	156	173	203	223	208	231	238
Mid-size banks	278	228	193	164	160	182	195	217	203	268	266
Sector	284	271	221	166	158	176	202	222	207	227	231

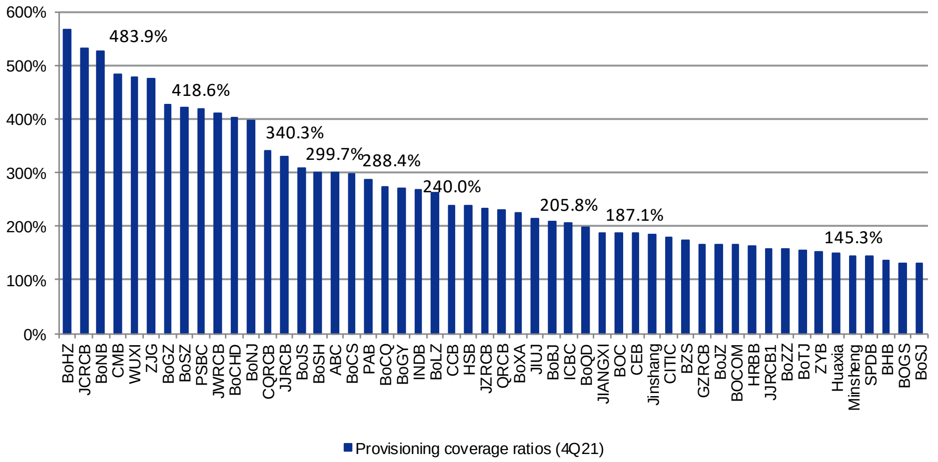
SOURCES: CGS-CIMB RESEARCH, COMPANY REPORTS

Figure 20: Loan loss reserve (LLR) ratio (%)

(%)	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	1Q22
ICBC	2.50	2.43	2.34	2.35	2.22	2.39	2.68	2.86	2.85	2.92	2.98
CCB	2.69	2.66	2.66	2.39	2.29	2.55	3.03	3.21	3.31	3.40	3.45
BOC	2.25	2.21	2.22	2.20	2.38	2.31	2.57	2.50	2.60	2.49	2.45
ABC	4.35	4.46	4.42	4.53	4.12	3.77	4.02	4.05	4.07	4.20	4.31
BOCOM	2.30	2.24	2.24	2.35	2.29	2.31	2.59	2.53	2.40	2.46	2.45
CMB	2.16	2.22	2.59	3.00	3.37	4.22	4.88	4.97	4.67	4.42	4.35
CITIC	2.12	2.13	2.36	2.39	2.62	2.84	2.80	2.90	2.82	2.50	2.49
MSB	2.39	2.21	2.12	2.46	2.62	2.66	2.36	2.43	2.53	2.60	2.49
PAB	1.74	1.79	2.06	2.41	2.71	2.57	2.71	3.01	2.37	2.94	2.94
CQRCB	3.43	3.46	3.58	4.11	4.10	4.21	4.49	4.75	4.12	4.27	4.32
Big four banks	2.90	2.88	2.85	2.81	2.69	2.72	3.05	3.14	3.20	3.25	3.31
Mid-size banks	2.20	2.17	2.31	2.53	2.71	2.94	3.12	3.20	3.03	3.00	2.96
Sector	2.74	2.72	2.73	2.75	2.70	2.78	3.08	3.16	3.16	3.20	3.23

SOURCES: CGS-CIMB RESEARCH, COMPANY REPORTS

Figure 21: 4Q21 provisioning coverage ratio of listed China banks



SOURCES: CGS-CIMB RESEARCH, COMPANY REPORTS, WIND

Zijin Rural Commercial Bank; ZJG: Jiangsu Zhangjiagang Rural Commercial Bank; BoSZ: Bank of Suzhou; JWRCB: Jiangsu Wujiang Rural Commercial Bank; INDB: Industrial Bank; PAB: Ping An Bank; CEB: China Everbright Bank; SPDB: Shanghai Pudong Development Bank; BoZZ: Bank of Zhengzhou; BoQD: Bank of Qingdao; Huaxia: Huaxia Bank

Valuation and risks

We value the H-share China banks using a stress-test-adjusted GGM. For A-share banks, we value them using a weighted average valuation approach, which takes into account a fundamentally-derived, stress-test-adjusted GGM (50%) and their historical average A-H share valuation gap since Jan 11 (50%). We list our key valuation assumptions in Fig 22.

Figure 22: Summary of valuation methodology and risks

Company	Ticker	TP (HK$)	Rating	Valuation methodology	Risks
ICBC	1398 HK	5.90	Add	Stress-test-adjusted GGM, assuming COE of 10.0% and a 'g' of 3%, which implies a target P/BV of 0.56x and a sustainable ROE of 6.9%	Lower-than-expected change in NIM, worse-than-expected asset quality
CCB	939 HK	8.00	Add	Stress-test-adjusted GGM, assuming COE of 10.0% and a 'g' of 3%, which implies a target P/BV of 0.62x and a sustainable ROE of 7.3%	Lower-than-expected change in NIM, worse-than-expected asset quality
BOC	3988 HK	4.20	Add	Stress-test-adjusted GGM, assuming COE of 10.4% and a 'g' of 3%, which implies a target P/BV of 0.50x and a sustainable ROE of 6.7%	Slower-than-expected US rate rises; Risks with One Belt One Road
ABC	1288 HK	4.40	Add	Stress-test-adjusted GGM, assuming COE of 11.4% and a 'g' of 3%, which implies a target P/BV of 0.58x and a sustainable ROE of 7.8%	Worse-than-expected asset quality, especially in the county areas; Downward NIM pressure
BOCOM	3328 HK	5.30	Add	Stress-test-adjusted GGM, assuming COE of 11.3% and a 'g' of 3%, which implies a target P/BV of 0.39x and a sustainable ROE of 6.2%	Better/ worse-than-expected progress with SOE reform, better/ worse-than-expected asset quality
CMB	3968 HK	84.10	Add	Stress-test-adjusted GGM, assuming COE of 9.4% and a 'g' of 3%, which implies a target P/BV of 2.15x and a sustainable ROE of 16.8%	Worse-than-expected change in NIM, Worse-than-expected asset quality
CITIC	998 HK	4.80	Add	Stress-test-adjusted GGM, assuming COE of 15.0% and a 'g' of 3%, which implies a target P/BV of 0.40x and a sustainable ROE of 7.8%	Better/worse-than-expected change in NIM, better/worse-than-expected asset quality
MSB	1988 HK	2.60	Hold	Stress-test-adjusted GGM, assuming COE of 14.5% and a 'g' of 3%, which implies a target P/BV of 0.20x and a sustainable ROE of 5.3%	Worse-than-expected asset quality; Unexpected change in strategy under new management and major shareholder
CQRCB	3618 HK	4.10	Add	Stress-test-adjusted GGM, assuming COE of 14.6% and a 'g' of 3%, which implies a target P/BV of 0.40x and a sustainable ROE of 7.6%	Lower-than-expected change in NIM, Worse-than-expected slowdown of Chongqing's economic growth leading to worse asset quality
PAB	000001 CH	Rmb22.70	Add	Stress-test-adjusted GGM, assuming COE of 9.8% and a 'g' of 3%, which implies a target P/BV of 1.23x and a sustainable ROE of 11.4%	Worse-than-expected change in NIM, Worse-than-expected asset quality

SOURCES: CGS-CIMB RESEARCH

Figure 23: China banks valuation table (H-share and A-share banks) as of 23 Jun 2022

Company	Ticker	Rating	Mkt cap	Price	Target	Upside/	P/BV (x)		P/E (x)		P/PPOP (x)		Dividend yield		ROE(%)	
			(US$ bn)	(Lcy)	price (Lcy)	Downside	FY22F	FY23F	FY22F	FY23F	FY22F	FY23F	FY22F	FY23F	FY22F	FY23F
ICBC	1398 HK	Add	249.0	4.53	5.90	30%	0.43	0.39	3.7	3.4	2.1	1.9	8.3	9.0	12.0	12.1
CCB	0939 HK	Add	177.3	5.59	8.00	43%	0.43	0.40	3.7	3.4	2.0	1.8	8.3	9.1	12.3	12.3
BOC	3988 HK	Add	138.1	3.09	4.20	36%	0.37	0.34	3.4	3.1	1.9	1.8	9.2	10.1	11.2	11.3
ABC	1288 HK	Add	161.0	2.91	4.40	51%	0.38	0.35	3.5	3.2	1.7	1.6	9.1	10.0	11.5	11.6
BOCOM	3328 HK	Hold	54.1	5.25	5.30	1%	0.39	0.36	3.7	3.3	1.9	1.7	8.7	9.6	10.9	11.1
CMB	3968 HK	Add	147.1	49.50	84.10	70%	1.27	1.11	7.7	6.5	4.5	4.1	4.3	5.1	17.4	18.2
CITIC	0998 HK	Add	33.0	3.83	4.80	25%	0.29	0.26	2.7	2.4	1.0	1.0	10.3	11.7	10.9	11.4
MSB	1988 HK	Hold	22.7	2.79	2.70	-3%	0.20	0.19	3.1	2.6	1.0	0.9	9.8	11.4	6.8	7.5
CQRCB	3618 HK	Add	6.0	2.84	4.10	44%	0.25	0.23	2.4	2.1	1.1	1.0	12.3	14.0	10.6	11.1
H-share weighted average							0.55	0.50	4.3	3.8	2.4	2.2	8.0	8.8	12.6	12.9
ICBC - A	601398 CH	Add	249.0	4.77	5.10	7%	0.54	0.49	4.7	4.3	2.6	2.4	6.6	7.2	12.0	12.1
CCB - A	601939 CH	Add	177.3	6.04	7.10	18%	0.56	0.51	4.7	4.3	2.6	2.4	6.5	7.1	12.3	12.3
BOC - A	601988 CH	Add	138.1	3.25	3.80	17%	0.46	0.43	4.3	3.9	2.4	2.2	7.3	8.1	11.2	11.3
ABC - A	601288 CH	Add	161.0	3.02	3.90	29%	0.47	0.44	4.3	3.9	2.1	2.0	7.4	8.1	11.5	11.6
BOCOM - A	601328 CH	Hold	54.1	4.97	4.80	-3%	0.43	0.40	4.1	3.8	2.1	2.0	7.8	8.5	10.9	11.1
CMB - A	600036 CH	Add	147.1	40.14	71.50	78%	1.22	1.07	7.4	6.3	4.4	4.0	4.4	5.3	17.4	18.2
CITIC - A	601998 CH	Add	33.0	4.80	4.90	2%	0.43	0.39	4.1	3.6	1.5	1.4	6.9	7.8	10.9	11.4
MSB - A	600016 CH	Reduce	22.7	3.93	2.50	-36%	0.34	0.32	5.1	4.4	1.6	1.5	5.9	6.8	6.8	7.5
PAB - A	000001 CH	Add	43.6	14.20	22.70	60%	0.76	0.69	7.0	5.9	2.1	1.9	1.9	2.2	11.5	12.3
CQRCB - A	601077 CH	Add	6.0	3.96	4.50	14%	0.41	0.38	4.0	3.5	1.9	1.7	7.4	8.5	10.6	11.1
A-share weighted average							0.63	0.57	5.1	4.6	2.7	2.5	6.2	6.9	12.5	12.8
Combined sector weighted average							0.59	0.54	4.7	4.2	2.5	2.3	7.1	7.9	12.6	12.8

SOURCES: CGS-CIMB RESEARCH ESTIMATES, COMPANY REPORTS, BLOOMBERG

**ICBC: INDUSTRIAL AND COMMERCIAL BANK OF CHINA; CCB: CHINA CONSTRUCTION BANK; BOC: BANK OF CHINA; ABC: AGRICULTURAL BANK OF CHINA; BOCOM: BANK OF COMMUNICATIONS; CMB: CHINA MERCHANTS BANK; CITIC: CHINA CITIC BANK; MSB: CHINA MINSHENG BANK; CQRCB: CHONGQING RURAL COMMERCIAL BANK*

Sector downside risks include a worse-than-expected economic slowdown in China. This could result in higher-than-expected asset quality pressure, as well as greater-than-expected loan prime rate (LPR) cuts, which could also depress net interest margins. We discussed the impact of a slower China economy in detail in *Levers at work,* dated 19 Mar 2020, where we argued that provisioning coverage ratios and non-performing loan (NPL) recognition ratios represented potential levers that can cushion a slowdown in net profit growth.

Another downside risk is that the larger banks may face greater-than-expected policy risks with respect to lending in the event of a significant economic slowdown. Such policy-directed lending could result in asset quality problems for these banks further down the road, in our view.

A sector upside risk is a substantial improvement in the Covid-19 situation, which could then lead to improved consumer confidence, a stronger economy and consequently, reduced asset quality pressures.

ESG in a nutshell

We view the China banks as having medium ESG risk. The Refinitiv combined ESG scores in 2020 of the China banks under our coverage ranged from B to C. We see relative strength in social scores being offset by weaker governance scores (which we think is in part due to the government being the majority shareholder of most of the China banks under our coverage) and somewhat neutral environmental scores. We view the China banks as good corporate citizens with strong sense of social responsibility and an important provider of inclusive finance. Given President Xi's announcement in Apr 2021 that China's coal consumption will decline starting no later than 2026 and given China's pledge to hit peak emissions by 2030 and achieve carbon neutrality by 2060, the China banks have been actively developing and rolling out green finance solutions. These can be positive on the ESG scores of China banks going forward. Having said that, the road to more environmentally friendly lending could be rocky, given that policymakers do at times direct banks to lend more to certain sectors. For example, the China banks were told by policymakers in early-Oct 2021 to ramp up funding to coal and energy companies to ease China's power shortages.

Keep your eye on	Implications
The pace at which green finance solutions are rolled out by the China banks, as well as the extent to which the China banks ramped up lending to coal and energy companies in late-2021 to help ease China's power shortages. Note that the central bank, the People's Bank of China (PBOC), said in early-Jun 2021 that it would implement mandatory disclosure requirements on climate-related impact for the banks and had issued 'Banking Sector Financial Institution Green Finance Assessment Plan (银行业金融机构绿色金融评价方案), with both qualitative and quantitative metrics used to assess the China banks' green finance initiatives.	More lending to coal and energy companies in the near term could be negative for ESG scores via an arguably worse environmental score. However, this could be temporary, and we do expect loan growth to these companies to slow once China's power shortages ease.

ESG highlights	Implications
Our top ESG pick for the China banks is CCB. Refinitiv assigned a combined ESG score of B to CCB in 2020, which is the highest combined ESG in 2020 of the China banks under our coverage.	We do think that investors have historically focused very heavily on concerns over governance of the China banks (given their largely state-owned nature), which could see conflicts with the interests of minority shareholders. We also think that investors may not have adequately factored in these banks' shift to offer more green finance solutions to help China achieve its 2030 and 2060 carbon goals. This should lead to improved ESG scores across time and better valuations.

Trends	Implications
One of the key areas of ESG focuses for banks is to increase green financing, especially since policymakers have been more vocal in 2021 about their environmental goals and the explicit timelines (2030 and 2060) that have been announced.	The banks have been increasing their disclosures on how they are complying with national objectives to increase green financing.

SOURCES: CGS-CIMB RESEARCH, REFINITIV

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Reduce	7.8%	0.2%

Corporate Governance Report of Thai Listed Companies (CGR). CG Rating by the Thai Institute of Directors Association (Thai IOD) in 2021, Anti-Corruption 2021

ADVANC – Excellent, Certified, **AMATA** – Excellent, Certified, **ANAN** – Excellent, n/a, **AOT** – Excellent, n/a, **AP** – Excellent, Certified, **ASP** – Excellent, n/a, **AWC** – Excellent, Declared, **AU** – Good, n/a, **BAM** – Very Good, Certified, **BAY** – Excellent, Certified, **BBL** – Excellent, Certified, **BCH** – Very Good, Certified, **BCP** - Excellent, Certified, **BCPG** – Excellent, Certified, **BDMS** – Excellent, n/a, **BEAUTY** – Good, n/a, **BEM** – Excellent, n/a **BH** - Good, n/a, **BJC** – Very Good, n/a, **BLA** – Very Good, Certified, **BTS** - Excellent, Certified, **CBG** – Very Good, n/a, **CCET** – n/a, n/a, **CENTEL** – Excellent, Certified, **CHAYO** – Very Good, n/a, **CHG** – Very Good, n/a, **CK** – Excellent, n/a, **COM7** – Excellent, Certified, **CPALL** – Excellent, Certified, **CPF** – Excellent, Certified, **CPN** - Excellent, Certified, **CPNREIT** – n/a, n/a, **CRC** – Excellent, Declared, **DELTA** - Excellent, Certified, **DDD** – Excellent, n/a, **DIF** – n/a, n/a, **DOHOME** – Very Good, Declared, **DREIT** – n/a, n/a, **DTAC** – Excellent, Certified, **ECL** – Excellent, Certified, **EGCO** - Excellent, Certified, **EPG** – Excellent, Certified, **ERW** – Very Good, Certified, **GFPT** - Excellent, Certified, **GGC** – Excellent, Certified, **GLOBAL** – Excellent, n/a, **HANA** - Excellent, Certified, **HMPRO** - Excellent, Certified, **HUMAN** – Good, n/a, **ICHI** – Excellent, Certified, **III** – Excellent, Declared, **INTUCH** - Excellent, Certified, **IRPC** – Excellent, Certified, **ITD** – Very Good, n/a, **IVL** - Excellent, Certified, **JASIF** – n/a, n/a, **JKN** – n/a, Certified, **JMT** – Very Good, n/a, **KBANK** - Excellent, Certified, **KCE** - Excellent, Certified, **KEX** – Very Good, Declared, **KKP** – Excellent, Certified, **KSL** – Excellent, Certified, **KTB** - Excellent, Certified, **KTC** – Excellent, Certified, **LH** - Excellent, n/a, **LPN** – Excellent, Certified, **M** – Very Good, Certified, **MAKRO** – Excellent, Certified, **MC** – Excellent, Certified, **MEGA** – Very Good, n/a, **MINT** - Excellent, Certified, **MTC** – Excellent, Certified, **NETBAY** – Very Good, n/a, **NRF** – Very Good, Declared, **OR** – Excellent, n/a, **ORI** – Excellent, Certified, **OSP** – Excellent, n/a, **PLANB** – Excellent, Certified, **PRINC** – Very Good, Certified, **PR9** – Excellent, Declared, **PSH** – Excellent, Certified, **PTT** - Excellent, Certified, **PTTEP** - Excellent, n/a, **PTTGC** - Excellent, Certified, **QH** – Excellent, Certified, **RAM** – n/a, n/a, **RBF** – Very Good, n/a, **RS** – Excellent, Declared, **RSP** – Good, n/a, **S** – Excellent, n/a, **SAK** – Very Good, Declared, **SAPPE** – Very Good, Certified, **SAWAD** – Very Good, n/a, **SCB** - Excellent, Certified, **SCC** – Excellent, Certified, **SCGP** – Excellent, Declared, **SECURE** – n/a, n/a, **SHR** – Excellent, n/a, **SIRI** – Excellent, Certified, **SPA** – Very Good, n/a, **SPALI** - Excellent, Certified, **SPRC** – Excellent, Certified, **SSP** - Good, Certified, **STEC** – Excellent, n/a, **SVI** – Excellent, Certified, **SYNEX** – Very Good, Certified, **TCAP** – Excellent, Certified, **THANI** – Excellent, Certified, **TIDLOR** – n/a, Certified **TISCO** - Excellent, Certified, **TKN** – Very Good, n/a, **TOP** - Excellent, Certified, **TRUE** – Excellent, Certified, **TTB** - Excellent, Certified, **TU** – Excellent, Certified, **TVO** – Excellent, Certified, **VGI** – Excellent, Certified, **WHA** – Excellent, Certified, **WHART** – n/a, n/a, **WICE** – Excellent, Certified, **WORK** – Good, n/a.

- CG Score 2021 from Thai Institute of Directors Association (IOD)

- Companies participating in Thailand's Private Sector Collective Action Coalition Against Corruption programme (Thai CAC) under Thai Institute of Directors (as of August 5, 2021) are categorised into: companies that have declared their intention to join CAC, and companies certified by CAC.

Recommendation Framework

Stock Ratings	Definition:
Add	The stock's total return is expected to exceed 10% over the next 12 months.
Hold	The stock's total return is expected to be between 0% and positive 10% over the next 12 months.
Reduce	The stock's total return is expected to fall below 0% or more over the next 12 months.

The total expected return of a stock is defined as the sum of the: (i) percentage difference between the target price and the current price and (ii) the forward net dividend yields of the stock. Stock price targets have an investment horizon of 12 months.

Sector Ratings	Definition:
Overweight	An Overweight rating means stocks in the sector have, on a market cap-weighted basis, a positive absolute recommendation.
Neutral	A Neutral rating means stocks in the sector have, on a market cap-weighted basis, a neutral absolute recommendation.
Underweight	An Underweight rating means stocks in the sector have, on a market cap-weighted basis, a negative absolute recommendation.

Country Ratings	Definition:
Overweight	An Overweight rating means investors should be positioned with an above-market weight in this country relative to benchmark.
Neutral	A Neutral rating means investors should be positioned with a neutral weight in this country relative to benchmark.
Underweight	An Underweight rating means investors should be positioned with a below-market weight in this country relative to benchmark.

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