

China Banks

Brace for a much worse NPL cycle amid COVID-19

Equities

China
Banks, Ex-S&L

Prefer defensive names ahead of coming multi-year NPL cycle

With global spread of COVID-19 and UBS-e China 2020 GDP cut to 1.5%, following our [deep-dive report on China banks NPL cycle](#), we raise our shock-driven NPL forecast from Rmb2.0trn to Rmb5.8trn, to be recognised over the next few years. While we estimate a material uptick in sector NPL and SML ratio to 3.0%/5.6% by end-2020, from 1.9%/2.9%, we expect earnings impact to be milder (2020E: -5%) with stimulus policies, abundant market liquidity, and NPL forbearance. We downgrade Ping An Bank to Neutral on concern of near-term pressure on consumer lending. We also downgrade BOC (A&H) to Neutral on further NIM pressure and headwinds in overseas markets. We cut our 2020/21 NPAT estimates by 7%/8%, and forecast 2020 NPAT growth of 0.2%/-1.7% for big 4 banks/ joint-stock banks (JSB). We lower our price targets for China bank stocks across the board on weaker earnings outlook and higher COE assumption. CCB, ICBC and PSBC are our only Buys in the H-share universe (Figure 1).

NIM to come under pressure, but better off than global peers

We expect material headwinds on sector NIM in 2020, including ongoing [LPR adoption on outstanding loans](#), more LPR cuts ahead, weakened loan demand, and concessionary rates charged to MSEs, while RRR cuts and [potential deposit benchmark rate cuts](#) may provide some relief. We forecast NIM to contract 6bp/ 5bp for big 4 banks and JSBs, respectively, and see higher upside risk to that of JSB with market rates trending down rapidly. Relative to global peers, China banks are operating in a much better rate environment due to more restrained monetary policy easing by PBOC.

We see higher safety margins on earnings and dividends for large banks

We expect the large banks to fare better on upcoming asset quality deterioration due to risk buffers, cleaner loan book, and lower share of loan book exposure to private sector, which will likely be hit harder by COVID-19. Despite market concern over dividend sustainability, we expect the big 4 banks to maintain dividend payout ratio, given [stronger CET-1 ratio](#) and pressure to maintain contribution to fiscal revenue.

Retail banking: near-term challenging; medium-term outlook intact

We expect pressure on consumer loans in the near-term on both loan growth and asset quality, given rising unemployment pressure, weakened income growth outlook, and significant disruption to normal consumption activities. That said, we remain constructive on the medium-term outlook of retail banking, given China's path towards a consumption-led economy and the trend of consumption upgrade should continue.

May Yan

Analyst

may.yan@ubs.com

+852-2971 7157

Alex Ye

Analyst

alex.ye@ubs.com

+852-3712 3594

Edward Du

Associate

edward.du@ubssecurities.com

+86-21-3866 8780

Julie Hou

Analyst

S1460518080002

julie.hou@ubssecurities.com

+86-213-866 8871

Alex Zhou

Analyst

alex-huanan.zhou@ubs.com

+852-3712 4218

Contents

Summary of rating & PT changes.....	4
PIVOTAL QUESTIONS.....	7
Q: Are China banks' earnings and dividends at risk amid COVID-19 impacts?	7
PIVOTAL QUESTIONS.....	18
Q: What's the NIM outlook for China banks?	18
PIVOTAL QUESTIONS.....	25
Q: Is the outlook for retail banking more negative than corporate banking?	25
What's priced in?.....	35
Bank of China.....	39
Ping An Bank.....	40
China Minsheng Banking.....	41
China Minsheng Banking-A.....	56

May Yan
Analyst
may.yan@ubs.com
+852-2971 7157

Alex Ye
Analyst
alex.ye@ubs.com
+852-3712 3594

Edward Du
Associate
edward.du@ubssecurities.com
+86-21-3866 8780

Julie Hou
Analyst
51460518080002
julie.hou@ubssecurities.com
+86-213-866 8871

Alex Zhou
Analyst
alex-huanan.zhou@ubs.com
+852-3712 4218

Figure 1: Summary of PT and rating revisions – H & A shares

	Ticker	Rating		Price target		Price (LC)	Implied upside	Dividend yield	EPS growth		P/BV ratio		P/E ratio		ROAE	
		(New)	(Old)	(New)	(Old)				2020E	2021E	2020E	2021E	2020E	2021E	2020E	2021E
UBS H-share coverage																
PSBC	1658.HK	Buy	Buy	5.80	6.50	4.71	23%	5.0%	-1.6%	15.5%	0.68x	0.62x	6.0x	5.2x	11.9%	12.6%
CCB	0939.HK	Buy	Buy	7.60	8.30	6.30	21%	5.6%	0.8%	4.2%	0.62x	0.57x	5.3x	5.1x	12.1%	11.6%
ICBC	1398.HK	Buy	Buy	6.30	6.80	5.27	20%	5.5%	0.2%	6.4%	0.63x	0.58x	5.5x	5.1x	12.0%	11.7%
ABC	1288.HK	Neutral	Neutral	3.30	3.20	3.12	6%	6.5%	0.6%	5.5%	0.52x	0.48x	4.7x	4.5x	11.5%	11.2%
CQRCB	3618.HK	Neutral	Neutral	3.20	4.20	3.14	2%	8.1%	-12.8%	9.6%	0.34x	0.31x	3.5x	3.2x	10.0%	10.1%
BOC	3988.HK	Neutral	🔴 Buy	3.10	4.60	3.01	3%	7.1%	0.6%	5.3%	0.45x	0.42x	4.4x	4.2x	10.6%	10.4%
CMB	3968.HK	Neutral	Neutral	35.10	42.60	35.00	0%	3.8%	5.9%	14.0%	1.23x	1.09x	8.2x	7.2x	15.8%	16.0%
MSB	1988.HK	Neutral	Sell	5.60	n.a.	5.70	-2%	7.2%	-5.2%	6.3%	0.41x	0.38x	4.4x	4.1x	10.2%	9.5%
Huishang	3698.HK	Sell	Sell	2.70	2.90	2.90	-7%	6.0%	-10.1%	8.7%	0.41x	0.37x	3.7x	3.4x	11.4%	11.2%
BOCOM	3328.HK	Sell	🔴 Neutral	4.20	5.80	4.85	-13%	7.2%	-5.5%	5.4%	0.44x	0.41x	4.6x	4.4x	9.8%	9.7%
CITIC	0998.HK	Sell	🔴 Neutral	3.30	4.70	3.82	-14%	7.0%	-9.1%	8.8%	0.36x	0.33x	4.0x	3.6x	9.3%	9.5%
Average																
								6.3%	-3.3%	8.2%	0.55x	0.51x	4.9x	4.6x	11.3%	11.2%
UBS A-share coverage																
CCB-A	601939.SH	Buy	Buy	8.22	8.80	6.42	28%	5.0%	0.8%	4.2%	0.70x	0.65x	6.1x	5.8x	12.1%	11.6%
ICBC-A	601398.SH	Buy	Buy	6.52	6.80	5.16	26%	5.1%	0.2%	6.4%	0.68x	0.63x	6.0x	5.6x	12.0%	11.7%
CMB-A	600036.SH	Buy	Buy	37.00	45.70	32.52	14%	3.7%	5.9%	14.0%	1.27x	1.13x	8.5x	7.4x	15.8%	16.0%
MSB	600016.SH	Neutral	Neutral	6.11	n.a.	5.78	6%	6.4%	-5.2%	6.3%	0.46x	0.43x	5.0x	4.7x	10.2%	9.5%
PAB	000001.SZ	Neutral	🔴 Buy	13.24	18.62	12.88	3%	1.9%	-0.8%	11.6%	0.84x	0.77x	8.4x	7.5x	10.4%	10.6%
ABC-A	601288.SH	Neutral	Neutral	3.60	3.90	3.42	5%	5.3%	0.6%	5.5%	0.63x	0.58x	5.7x	5.4x	11.5%	11.2%
BOC-A	601988.SH	Neutral	🔴 Buy	3.47	4.70	3.51	-1%	5.4%	0.6%	5.3%	0.58x	0.54x	5.7x	5.4x	10.6%	10.4%
CITIC-A	601998.SH	Sell	🔴 Neutral	4.57	6.00	5.18	-12%	4.6%	-9.1%	8.8%	0.54x	0.50x	6.0x	5.5x	9.3%	9.5%
Average																
								4.6%	-0.4%	7.2%	0.71x	0.64x	6.3x	5.9x	11.5%	11.3%

Note: Above data as of 7 April 2020.

Source: Thomson Reuters, UBS-S estimates, UBS estimates

China Banks – H

UBS Research THESIS MAP a guide to our thinking and what's where in this report

MOST FAVOURED

LEAST FAVOURED

CCB, ICBC, PSBC

Huishang

PIVOTAL QUESTIONS

Q: Are China banks' earnings and dividends at risk amid COVID-19 impacts?

Yes, but less so for the large banks. We expect sector earnings growth to decline 5% in 2020 given rising pressure on NIM and asset quality. That said, we see large banks and CMB as better positioned to maintain flat/ positive earnings growth and constant dividends payout, given their higher risk buffers, cleaner loan book, stronger capital position, and lower share of loan book exposure to the private sector, which is likely to be hit harder by economic shocks. [more →](#)

Q: What's the NIM outlook for China banks?

We expect an average NIM decline of 5bp in 2020 among China banks under our coverage (big 4 average -6bp; JSB average -5bp), driven by ongoing LPR adoption on existing loans, likely more LPR cuts ahead, and regulatory directive for lower financing costs to MSEs. Potential deposit benchmark rate cut ahead after CPI falls notably could provide some relief to the NIM pressure. Relative to large banks, we see more upside risk to NIM for JSBs given current downward pressure on market trends will likely benefit the funding costs of net interbank borrowers. [more →](#)

Q: Is the outlook for retail banking more negative than corporate banking?

Yes, but only in the near term. We expect consumer loans growth to slow to 7% YoY in 2020 from 16% in 2019, given rising unemployment pressure, weakened income growth outlook, and disruption to consumption activities. Asset quality of JSBs with higher exposure to non-mortgage consumer credit may be under greater pressure, in our view. We downgrade PAB to Neutral from Buy on a more challenging outlook in the near term. [more →](#)

UBS VIEW

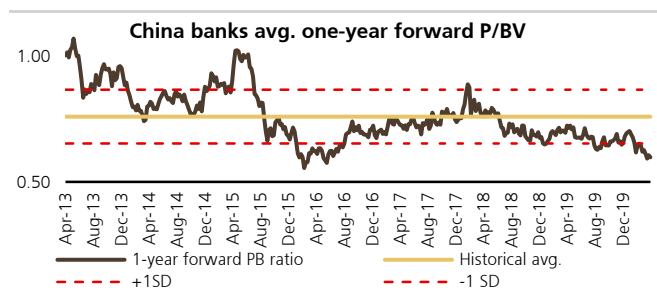
We expect the banking sector to go through a tougher NPL cycle in the coming years due to the unprecedented challenges caused by the COVID-19 outbreak. Earnings impact to banks will likely be milder with policy support for MSEs' liquidity needs, and potential NPL forbearance by regulators. We prefer large banks over JSBs on stronger balance sheets to avoid negative earnings growth and maintain stable dividend pay-outs.

EVIDENCE

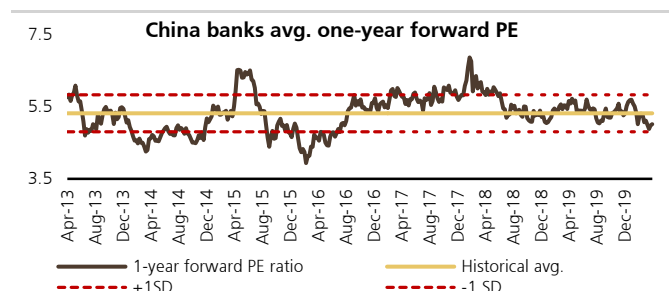
Large banks outperform most JSBs on multiple asset quality indicators and have adopted stricter NPL classification, which we think could help them avoid an earnings decline. Our stress test shows large banks will be able to maintain a decent safety margin above regulatory requirements on CET-1 ratio without any dividend cuts.

WHAT'S PRICED IN?

H-share banks are trading at 0.60x 1-year forward P/B, more than 1x SD below historical mean. Major Chinese banks' share price have corrected by c.11-23% since the COVID-19 outbreak in China. We believe banks' current valuations have largely factored in the current market view of slower China GDP growth at 2-4% in 2020 and the resulted bank asset quality deterioration. However, given the widespread of COVID-19 worldwide, there could be more downside risk for bank stocks from trade-related and global supply chain disruptions as a result of a potential global recession. [more →](#)



Source: Datastream, UBS



Source: Datastream, UBS

Summary of rating & PT changes

- With global spread of COVID-19 still evolving and UBS-e China 2020 GDP growth further cut to 1.5%, we are raising our previous forecast for shock-driven NPLs from Rmb2.0trn to Rmb5.8trn, to be gradually recognised over the next couple of years in our view. While we estimate sector NPL ratio and SML ratio to pick up materially to 3.0%/ 5.6% by end-2020 from 1.9%/ 2.9% in end-2019, we expect sector earnings impact to be milder (-5% for 2020E) with supportive policies, more market liquidities, and NPL forbearances by regulator.
- In light of the upcoming asset quality deterioration, we lower our estimates on 2019-20E NPAT by single digit for large SOE banks and CMB, while other peg joint-stock banks (JSBs) and city/ rural commercial banks' earnings at high-single to low-teens YoY decline considering their weaker risk control capability. We now forecast 2020 NPAT growth of 0.2%/ -1.7% for big 4 banks/ JSBs, and lower price targets for China bank stocks across the board on weaker earnings outlook and higher COE assumption. **CCB, ICBC and PSBC** are our only Buys among the H-share universe (Figure 1).
- **We downgrade Ping An Bank from Buy to Neutral** given potentially weak retail loan demand and asset quality deterioration due to COVID-19 outbreak. We expect COVID-19 to have significant negative impact on 2020E earnings growth which will lower PAB's earnings growth to +5% only (+14% in 2019) due to lower NIM (2.56% vs 2.62% in 2019) on loan mix shift to corporate loans and elevated credit cost (2.5%, same as 2019). However, we remain positive on retail banking in the medium term after the COVID-19 impacts are gradually resolved, and forecast the bank's profit growth to rebound to 12% in 2021, assuming retail loan growth back to normal.
- **We downgrade BOC (both A&H) from Buy to Neutral** on further NIM pressure and operational headwind in overseas market. Among Chinese banks, BOC has the highest overseas exposure, with offshore asset accounting for c.30% of total asset by end-2019. Given the US Fed Fund rate has been cut by 100bp to 0-25bp in mid-March 2020 and the unfavourable economic growth outlook in Hong Kong, we believe BOC will suffer more NIM pressure with stagnant growth, mainly dragged by the slowing operation in BOC HK.
- **We downgrade CITIC Bank (both A&H) from Neutral to Sell**, as we believe the bank has inadequate capital which will constrain its loan/ asset growth. As of end-2019, the banks' CET1 ratio came at only 8.69%, only 119bp higher than current regulatory min requirement. Considering the potentially higher capital requirement over DSIFs, CITIC Bank would face mounting pressure on the trade-off between growth versus meeting regulatory requirement. In addition, the bank has relied on growing high-yielding non-mortgage consumer loans to support its NIM, which is difficult now given the weak demand for consumer finance.
- **We downgrade BOCOM-H from Neutral to Sell**, given BOCOM has continued to underperform among SOE banks. Although lower market rate would somewhat help ease BOCOM's funding pressure, we see continual overhang over its business expansion given the company's stagnant deposit growth (+4.8% versus big 4's avg 7% in FY19). Among large banks, BOCOM has the highest exposure to manufacturing and wholesale & retail sectors, which will likely put the banks' asset quality under greater pressure.

- **We resume coverage of Minsheng Banking (both A&H) with Neutral rating.** In 2020, MSB will start the 8th change of session of board, and there is little visibility on the bank's new strategy. We expect its 2020 earnings growth to decline by 5%, weaker than peers, due to NIM contraction and elevated credit cost given its higher exposure to MSEs and private sector. MSB-H is trading at 0.4x one-year forward P/BV, at historical low and large discount to peers. While valuation is undemanding, we suggest investors to wait until uncertainty on new shareholder and management is removed.
- **Downside case:** Key downside risks lie in further weakening of China's growth due to prolonged restriction of activities and a worse-than-expected global recession. In such downside case, we assume +20bp higher credit cost than in our based case for large SOE banks and CMB, and +30bp credit cost for other JSBs and smaller banks. These levels of credit costs imply 2.5-3.0% gross NPL formation for large banks and 3-3.5% for smaller banks, which have already surpassed the peak level of banks' NPL formation during 2015-16, and we believe this assumption is justified given the more severe COVID-19 impact on banks' asset quality. For NIM, we assume 15-20bp lower NIM versus base case for large SOE/CMB, but 25-30bp lower for other banks. We believe the worsening economic condition might urge PBOC to further lower MLF and hence the LPR. Amid the severe LPR downward trend, smaller banks will face further NIM pressure given their weaker pricing power with corporate clients.

Figure 2: Forecast revision in 2020-21E over our covered banks

Banking sector: 2020E forecast revision															
Rmb mn	NPAT			NII			Fee			PPoP			Impairment charges		
	Old	New	Chg	Old	New	Chg	Old	New	Chg	Old	New	Chg	Old	New	Chg
CCB	274,841	264,927	-3.6%	539,507	544,835	1.0%	142,846	148,874	4%	514,257	523,618	1.8%	(175,091)	(194,647)	11.2%
ICBC	319,321	308,456	-3.4%	666,091	642,433	-3.6%	163,798	167,123	2%	617,422	605,234	-2.0%	(214,473)	(215,111)	0.3%
BOC	190,130	181,672	-4.4%	415,448	394,364	-5.1%	98,270	94,837	-3%	380,976	372,732	-2.2%	(133,029)	(121,153)	-8.9%
ABC	218,333	208,679	-4.4%	538,097	519,120	-3.5%	92,515	92,033	-1%	444,208	431,913	-2.8%	(167,481)	(165,892)	-0.9%
BOCOM	80,445	70,574	-12.3%	171,981	150,201	-12.7%	46,540	45,842	-2%	164,896	146,890	-10.9%	(67,979)	(63,636)	-6.4%
PSBC	65,975	61,473	-6.8%	247,692	251,330	1.5%	21,339	21,072	-1%	127,283	127,940	0.5%	(55,103)	(60,486)	9.8%
CMB	101,848	96,581	-5.2%	188,553	188,420	-0.1%	72,005	75,383	5%	188,512	192,628	2.2%	(55,119)	(66,035)	19.8%
CITIC	47,734	42,419	-11.1%	123,023	137,742	12.0%	55,963	51,219	-8%	135,002	143,590	6.4%	(75,383)	(91,023)	20.7%
CQRCB	10,204	9,129	-10.5%	24,295	24,261	-0.1%	2,256	2,508	11%	21,404	19,787	-7.6%	(8,186)	(8,234)	0.6%
Huishang	10,267	8,487	-17.3%	22,029	26,124	18.6%	3,670	4,580	25%	24,462	25,855	5.7%	(11,343)	(14,746)	30.0%
PAB	33,570	29,691	-11.6%	98,886	97,787	-1.1%	35,287	38,528	9%	99,208	103,757	4.6%	(55,613)	(65,594)	17.9%
Average	71,047	65,879	-7.3%	176,820	174,373	-1.4%	41,197	41,396	0.5%	150,622	149,045	-1.0%	(62,026)	(66,956)	7.9%
Banking sector: 2021E forecast revision															
	NPAT (%)			Cost to income ratio (%)			ROE (%)			NPL ratio (%)			Coverage ratio (%)		
	Old	New	Chg	Old	New	Chg	Old	New	Chg	Old	New	Chg	Old	New	Chg
CCB	2.17	2.19	0.02	27.50	27.75	0.25	12.57	12.08	(0.49)	1.41	2.00	0.60	256	168	(87)
ICBC	2.23	2.18	(0.05)	26.30	26.50	0.20	12.37	11.96	(0.42)	1.47	1.94	0.47	205	159	(46)
BOC	1.86	1.77	(0.09)	32.00	32.70	0.70	11.13	10.61	(0.52)	1.38	1.92	0.54	194	138	(56)
ABC	2.21	2.11	(0.10)	35.00	35.50	0.50	12.03	11.46	(0.57)	1.56	2.40	0.84	275	174	(101)
BOCOM	1.63	1.55	(0.09)	34.80	32.70	(2.10)	11.11	9.83	(1.28)	1.46	1.92	0.46	216	121	(95)
PSBC	2.40	2.46	0.06	56.50	56.50	-	12.56	11.88	(0.69)	1.10	1.32	0.22	332	255	(77)
CMB	2.57	2.55	(0.02)	33.00	33.00	-	16.57	15.81	(0.76)	1.23	1.92	0.69	402	265	(137)
CITIC	1.91	2.06	0.15	31.00	29.50	(1.50)	10.52	9.33	(1.19)	1.75	2.94	1.19	168	125	(43)
CQRCB	2.42	2.29	(0.14)	30.74	28.80	(1.93)	12.40	9.98	(2.42)	1.44	2.80	1.36	384	182	(201)
Huishang	1.86	2.44	0.57	22.30	22.30	-	13.48	11.36	(2.12)	1.08	2.71	1.63	338	140	(198)
PAB	2.68	2.56	(0.12)	32.18	30.74	(1.43)	11.70	10.42	(1.28)	1.60	2.00	0.40	229	154	(75)
Average	2.10	2.06	(0.04)	34.3	34.1	(0.15)	12.37	11.74	(0.63)	1.46	2.10	0.64	254	172	(81)
Banking sector: 2021E forecast revision															
	NPAT			NII			Fee			PPoP			Impairment charges		
	Old	New	Chg	Old	New	Chg	Old	New	Chg	Old	New	Chg	Old	New	Chg
CCB	293,721	275,941	-6.1%	578,200	580,639	0.4%	153,934	160,959	5%	551,683	561,634	1.8%	(189,507)	(219,008)	15.6%
ICBC	339,556	328,340	-3.3%	712,046	674,458	-5.3%	174,313	176,497	1%	661,919	636,777	-3.8%	(233,702)	(221,802)	-5.1%
BOC	203,228	191,268	-5.9%	444,165	406,214	-8.5%	105,887	102,078	-4%	411,159	388,738	-5.5%	(143,383)	(130,916)	-8.7%
ABC	234,074	220,202	-5.9%	572,991	549,591	-4.1%	99,369	98,937	0%	475,473	460,173	-3.2%	(179,202)	(179,784)	0.3%
BOCOM	86,496	74,384	-14.0%	184,589	157,071	-14.9%	49,329	49,454	0%	174,588	154,907	-11.3%	(70,573)	(67,251)	-4.7%
PSBC	74,046	70,992	-4.1%	265,965	269,490	1.3%	26,230	25,847	-1%	141,792	142,478	0.5%	(61,104)	(64,985)	6.4%
CMB	114,631	110,118	-3.9%	206,218	202,216	-1.9%	74,269	80,700	9%	205,181	208,848	1.8%	(55,166)	(64,637)	17.2%
CITIC	50,530	46,155	-8.7%	132,750	148,736	12.0%	60,498	55,433	-8%	146,293	154,666	5.7%	(83,252)	(97,655)	17.3%
CQRCB	11,095	10,005	-9.8%	26,397	26,050	-1.3%	2,398	2,666	11%	23,162	21,397	-7.6%	(8,802)	(8,764)	-0.4%
Huishang	11,343	9,222	-18.7%	24,354	27,950	14.8%	3,964	4,947	25%	27,200	27,947	2.7%	(12,769)	(15,941)	24.8%
PAB	39,022	33,125	-15.1%	106,341	104,148	-2.1%	38,518	42,081	9%	103,794	110,080	6.1%	(53,119)	(67,504)	27.1%
Average	77,655	71,775	-7.6%	189,951	185,657	-2.3%	44,322	45,008	1.5%	162,185	160,062	-1.3%	(65,498)	(70,815)	8.1%
Banking sector: 2021E forecast revision															
	NPAT (%)			Cost to income ratio (%)			ROE (%)			NPL ratio (%)			Coverage ratio (%)		
	Old	New	Chg	Old	New	Chg	Old	New	Chg	Old	New	Chg	Old	New	Chg
CCB	2.15	2.15	(0.00)	27.40	27.75	0.35	12.27	11.55	(0.72)	1.45	1.83	0.39	273	174	(99)
ICBC	2.22	2.14	(0.08)	26.00	26.50	0.50	12.04	11.69	(0.35)	1.45	1.79	0.34	221	169	(52)
BOC	1.86	1.69	(0.16)	31.50	32.70	1.20	10.99	10.41	(0.58)	1.37	1.78	0.41	202	136	(66)
ABC	2.18	2.08	(0.11)	34.70	35.50	0.80	11.85	11.17	(0.68)	1.56	2.16	0.60	288	183	(105)
BOCOM	1.63	1.52	(0.11)	35.00	32.70	(2.30)	11.00	9.65	(1.35)	1.45	1.78	0.33	239	124	(115)
PSBC	2.39	2.44	0.04	55.30	56.50	1.20	12.84	12.55	(0.29)	1.09	1.06	(0.03)	334	287	(47)
CMB	2.58	2.52	(0.06)	32.00	33.00	1.00	16.42	16.05	(0.38)	1.23	1.79	0.56	399	266	(132)
CITIC	1.88	2.03	0.15	30.50	29.50	(1.00)	10.30	9.46	(0.83)	1.75	2.88	1.13	174	128	(46)
CQRCB	2.42	2.27	(0.16)	30.66	28.80	(1.86)	12.22	10.15	(2.07)	1.48	2.63	1.15	398	178	(220)
Huishang	1.85	2.38	0.53	21.60	22.30	0.70	13.11	11.20	(1.90)	1.11	2.69	1.58	360	147	(214)
PAB	2.66	2.50	(0.16)	34.70	30.74	(3.96)	12.24	10.63	(1.61)	1.54	1.90	0.36	235	170	(66)
Average	2.09	2.02	(0.07)	34.0	34.2	0.15	12.17	11.54	(0.63)	1.46	1.94	0.48	265	179	(86)

Source: Company data, UBS estimates

Figure 3: Earnings forecast and key drivers for covered Chinese banks in 2018-2021E

	NPAT growth				NIM				ROE			
	FY18	FY19	FY20E	FY21E	FY18	FY19	FY20E	FY21E	FY18	FY19	FY20E	FY21E
CCB	5.1%	4.7%	0.8%	4.1%	2.29%	2.24%	2.19%	2.15%	13.9%	13.2%	12.1%	11.6%
ICBC	4.1%	4.9%	0.2%	6.4%	2.30%	2.24%	2.18%	2.14%	13.7%	13.1%	12.0%	11.7%
BOC	4.5%	4.1%	0.6%	5.1%	1.90%	1.84%	1.77%	1.69%	11.9%	11.4%	10.6%	10.4%
ABC	5.1%	4.6%	0.6%	5.4%	2.33%	2.17%	2.11%	2.08%	13.5%	12.4%	11.5%	11.2%
BOCOM	4.9%	5.0%	-5.3%	5.2%	1.51%	1.58%	1.55%	1.52%	11.4%	11.2%	9.8%	9.7%
PSBC	9.7%	16.5%	5.0%	14.9%	2.67%	2.50%	2.46%	2.44%	12.3%	12.7%	11.9%	12.6%
CMB	14.8%	15.3%	5.8%	13.8%	2.57%	2.59%	2.55%	2.52%	16.6%	16.8%	15.8%	16.0%
CITIC	4.6%	7.9%	-8.9%	8.5%	2.09%	2.12%	2.06%	2.03%	11.3%	11.1%	9.3%	9.5%
MSB	1.0%	7.0%	-5.2%	6.3%	1.73%	1.94%	1.88%	1.88%	12.8%	12.4%	10.8%	10.7%
CQRCB	1.4%	7.8%	-6.5%	9.6%	2.45%	2.33%	2.29%	2.27%	13.6%	12.3%	10.0%	10.1%
Huishang	14.9%	12.3%	-9.7%	8.3%	2.36%	2.51%	2.44%	2.38%	14.7%	14.1%	11.4%	11.2%
PAB	7.0%	13.6%	5.3%	11.6%	2.35%	2.62%	2.56%	2.50%	11.8%	11.4%	10.4%	10.6%
Average	6.4%	8.6%	-1.4%	8.3%	2.21%	2.22%	2.17%	2.13%	13.1%	12.7%	11.3%	11.3%

	Cost-to-income ratio				NPL ratio				NPL coverage			
	FY18	FY19	FY20E	FY21E	FY18	FY19	FY20E	FY21E	FY18	FY19	FY20E	FY21E
CCB	27.6%	27.7%	27.7%	27.4%	1.46%	1.41%	2.00%	1.83%	208%	227%	168%	174%
ICBC	26.8%	26.8%	26.5%	26.4%	1.52%	1.43%	1.94%	1.79%	176%	199%	159%	169%
BOC	32.9%	32.9%	32.7%	32.7%	1.41%	1.36%	1.92%	1.78%	182%	183%	138%	136%
ABC	35.5%	35.6%	35.5%	35.2%	1.59%	1.40%	2.40%	2.16%	252%	289%	174%	183%
BOCOM	37.2%	36.7%	36.0%	35.5%	1.49%	1.47%	2.40%	2.31%	171%	170%	121%	124%
PSBC	58.3%	57.0%	56.5%	55.3%	0.86%	0.86%	1.32%	1.06%	345%	388%	255%	287%
CMB	32.8%	34.1%	33.0%	32.0%	1.36%	1.16%	1.92%	1.79%	341%	426%	265%	266%
CITIC	31.8%	28.9%	29.5%	29.5%	1.77%	1.65%	2.94%	2.88%	158%	175%	125%	128%
MSB	31.8%	28.1%	28.0%	29.0%	1.76%	1.56%	2.60%	2.50%	132%	156%	122%	127%
CQRCB	31.2%	29.4%	28.8%	28.2%	1.29%	1.25%	2.80%	2.63%	347%	380%	182%	178%
Huishang	23.0%	22.8%	22.3%	21.6%	1.04%	1.04%	2.71%	2.69%	299%	302%	140%	147%
PAB	31.4%	30.6%	30.7%	30.9%	1.75%	1.65%	2.00%	1.90%	155%	183%	154%	170%
Average	33.4%	32.5%	32.3%	32.0%	1.44%	1.35%	2.25%	2.11%	231%	256%	167%	174%

Source: Company data, UBS estimates

PIVOTAL QUESTIONS

[return](#) ↑**Q: Are China banks' earnings and dividends at risk amid COVID-19 impacts?**

UBS VIEW

Yes, but less so for the large banks. We expect sector earnings growth to decline 5% in 2020 given mounting pressure on NIM and asset quality. That said, we see large banks and CMB as better positioned to maintain flat/positive earnings growth and constant dividends payout, given their higher risk buffers, cleaner loan book, stronger capital position, and lower share of loan book exposure to the private sector, which is likely to be hit harder by economic shocks.

EVIDENCE

Large banks outperform most JSBs on multiple asset quality indicators and have adopted stricter NPL classification, which could help them avoid an earnings decline. We estimate large banks' exposure to the private sector averages at 16% of loan book as of Dec-18, which is substantially lower than the average of 33% among JSBs.

WHAT'S PRICED IN?

Share prices of the big 4 banks have been more resilient, outperforming shares of JSBs we cover by 6% since the COVID-19 outbreak. We think share prices of JSBs will remain under pressure as impacts of deteriorated asset quality gradually materialise over the coming quarters.

Moving towards our previous downside scenario on NPL formation

Given China's economic activities were much worse-than-expected in Jan-Feb, and are not fully back to normal in March, UBS China economists now expect China's GDP to fall by 5% YoY in Q120 (-31% QoQ SAAR) ([link](#)). With the further spread of coronavirus and a fast deteriorating global economy outlook after more countries have imposed lockdowns and mobility restrictions, China's recovery could be severely delayed. As such, UBS China economists have further revised down GDP growth forecasts to 1.5% in 2020, followed by a rebound to 7.5%. This implies a two-year CAGR of 4.5%, which is already worse than the forecast in the previous worst-case scenario of 4.8%.

As worsened macro outlook would inevitably bring with more pressure on business operations and NPLs as a result, we are raising our base-case estimate of additional shock-driven NPL formation for the banking system from Rmb2.0trn to Rmb5.8trn, as we move from a base case assumption of 2020-21 GDP CAGR of 5.5% to 4.5%. (For our methodology of NPL forecast, please see our earlier note ["The aftermath of the coronavirus: how bad could bank NPLs and corporate bond defaults be?" 11 March 2020](#)).

Apart from a sharp rise in potential NPL formation, the ultimate impacts to banks' earnings and balance sheet would also depend on a couple of other moving parts upon which there is little visibility so far. These factors include how much of such potential NPL would be recognised in current year/ deferred to following years by roll-over, what level of reported NPL ratio would regulator tolerate, whether

current minimum requirements on NPL coverage and provision-to-loan ratios would be relaxed, and the need to maintain organic capital generation to back credit growth.

While we are raising our forecast for shock-driven NPLs as a result of more severe deceleration of GDP growth, we now see it increasingly likely for regulators to exercise greater NPL forbearance (i.e. deferring NPL recognition to a multi-year period through roll-overs), as regulators need to carefully balance above factors. As such, we are also expecting these potential shock-driven NPLs to be recognised over a multi-year period (of which 33%/24%/15% will be recognised in 2020-22 in our new base case), rather than over a two-year period (70%/30% during 2020-21) in our previous forecast. We think this should help to ease the pressure of banking system to dispose of and make provisions for a sudden and sharp rise in NPLs.

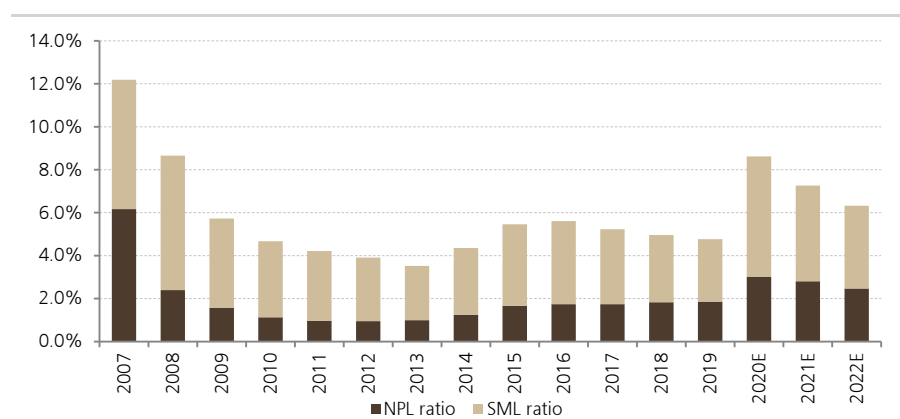
In our current base case forecast, we expect an earnings decline of 5% for the banking sector in 2020, followed by a moderate recover to 2% in 2021. We estimate credit cost to edge up 1.4-1.5% in 2020-21, higher than 1.3% in 2019. However, the smoothed earnings impacts would come at the cost of higher reported NPL ratio and SML ratio, and reserve buffer built up in prior years could be consumed rapidly as banks accelerate NPL disposal (Figure 4).

Figure 4: Summary of our new forecasts for banking sector

	2019	2020E	2021E
Key assumptions			
Real GDP growth	6.1%	1.5%	7.5%
% of shock-driven NPLs recognised		33%	24%
Key ratios			
Gross NPL formation (Rmb trn)	2.4	3.9	3.6
Gross NPL formation ratio	2.1%	3.0%	2.8%
NPL ratio	1.86%	3.03%	2.81%
SML ratio	2.91%	5.60%	4.46%
NPL coverage	186%	126%	122%
Provision-to-loan ratio	3.5%	3.8%	3.4%
Credit cost	1.33%	1.44%	1.43%
NPAT growth	6%	-5%	2%
ROAE	11.0%	9.4%	9.0%
CET-1 ratio	10.9%	10.8%	10.6%

Source: CBIRC, UBS estimates

Figure 5: We expect a large pick up in SML ratio due to NPL forbearance



Source: CBIRC, UBS estimates

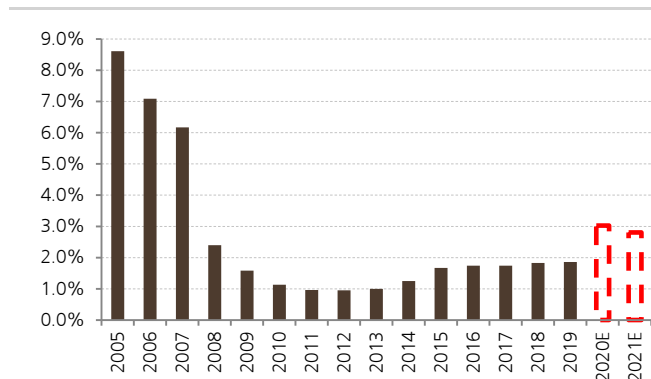
Figure 6: China banking sector P&L 2013-20E

Rmb bn	2013	2014	2015	2016	2017	2018	2019	2020E
P&L								
Net interest income	2,887	3,306	3,598	3,711	3,806	4,209	4,903	5,197
<i>NIM</i>	2.64%	2.68%	2.55%	2.27%	2.07%	2.13%	2.20%	2.12%
Non-interest income	851	974	1,154	1,251	1,233	1,282	1,527	1,589
<i>Non-interest income yoy growth</i>	28%	14%	18%	8%	-1%	4%	17%	4%
Operating expenses	(1,345)	(1,483)	(1,599)	(1,652)	(1,722)	(1,863)	(2,195)	(2,339)
<i>Cost-to-income ratio</i>	36%	35%	34%	33%	34%	34%	34%	34%
PPOP	2,394	2,797	3,154	3,310	3,318	3,628	4,235	4,447
<i>PPOP yoy growth</i>	14%	17%	13%	5%	0%	9%	13%	5%
Provisions	(540)	(765)	(1,072)	(1,155)	(1,033)	(1,235)	(1,629)	(1,959)
Profit before tax	1,854	2,032	2,082	2,156	2,285	2,392	2,605	2,488
Tax & minority int.	(436)	(478)	(489)	(507)	(537)	(562)	(612)	(585)
Net profit	1,418	1,555	1,593	1,649	1,748	1,830	1,993	1,903
<i>Net profit yoy growth</i>	14%	10%	2%	4%	6%	5%	6%	-5%
Balance sheet								
Average interest-yielding assets	109,287	123,480	141,079	163,842	183,724	197,450	222,440	244,684
<i>Average interest-yielding assets yoy growth</i>	15%	13%	14%	16%	12%	7%	13%	10%
Total loan balance	59,359	66,600	76,059	86,440	97,444	110,570	129,758	142,734
<i>Loan growth</i>	15%	12%	14%	14%	13%	13%	17%	10%

Source: CBIRC, UBS estimates

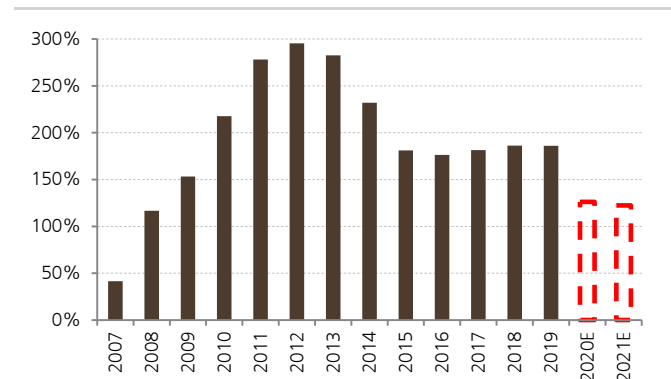
Our new base case forecasts

Figure 7: Banking sector NPL ratio



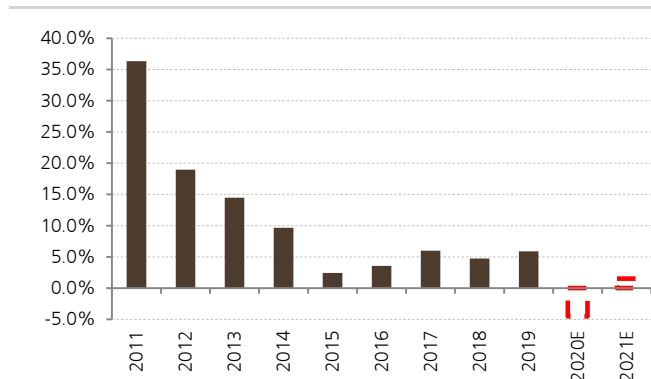
Source: CBIRC, UBS estimates

Figure 8: Banking sector NPL coverage



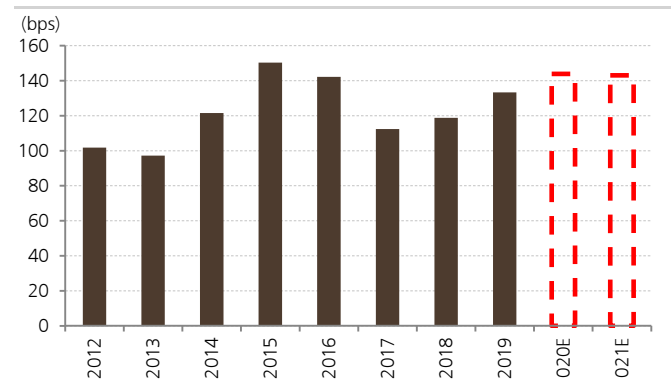
Source: CBIRC, UBS estimates

Figure 9: Banking sector earnings growth



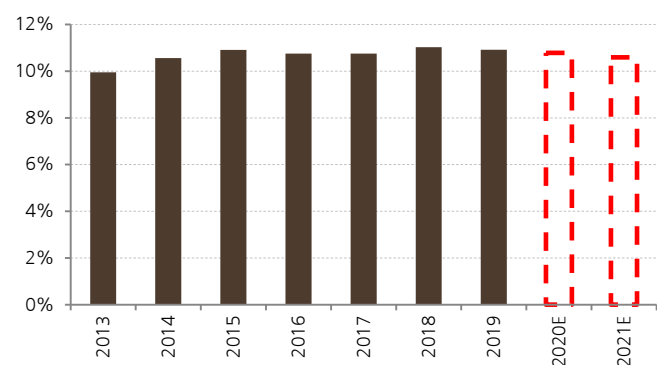
Source: CBIRC, UBS estimates

Figure 10: Banking sector credit cost



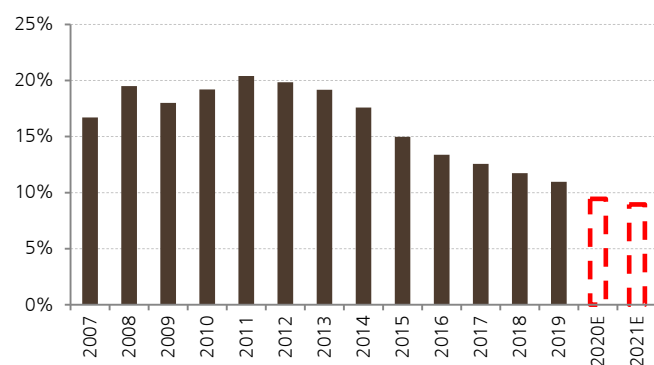
Source: CBIRC, UBS estimates

Figure 11: Banking sector CET-1 ratio



Source: CBIRC, UBS estimates

Figure 12: Banking sector ROAE



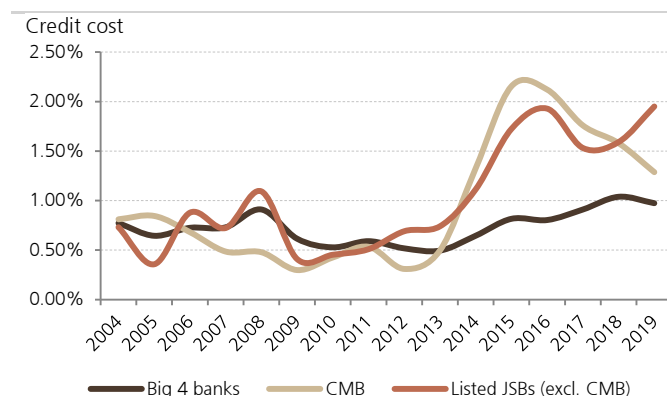
Source: CBIRC, UBS estimates

Risk buffers built up in the past three years could ease the pressure on credit cost

Despite mounting pressure on upcoming potential bad debt formation, we think the earnings impact to listed banks may not be as large. In fact, credit costs of both the big 4 banks and listed JSBs in 2019 are already at close to historical high over the past 15 years, which should act as the first line of defence before further erosion to earnings.

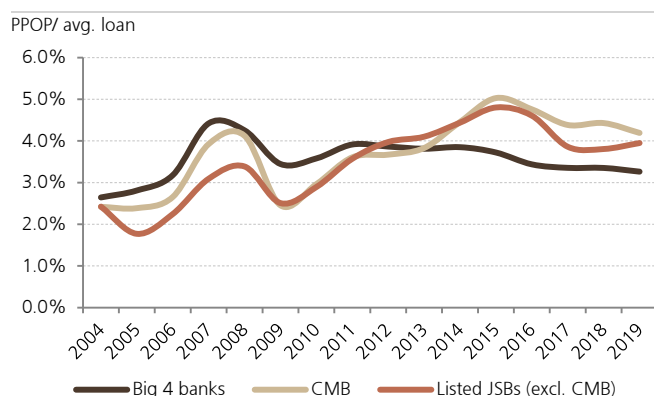
In addition, listed banks have strengthened their risk buffers noticeably over the past three years. Credit costs for the big 4 banks and listed JSBs stayed elevated since 2015 and averaged at around 1% and 2% respectively in 2019. This has helped to improve the NPL coverage of large banks visibly from the level in 2016. More importantly, due to tighter supervision by the regulator, China banks' NPL classification standards are now more stringent, evidenced by a substantial increase in NPL/ 90-day+ overdue ratio among both the big 4 banks and JSBs.

Figure 13: Credit costs of major listed banks were already at historical high...



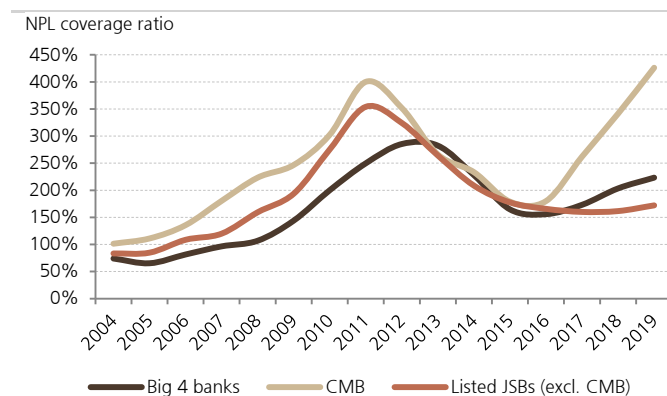
Note: 2019 data for JSBs does not include SPDB, IB and HXB, which have not released annual reports.
Source: Company data.

Figure 14: ...even though pre-provision profits has weakened on narrowed NIM



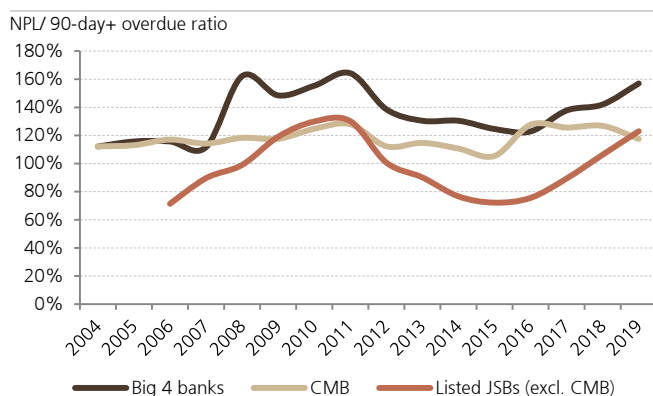
Note: 2019 data for JSBs does not include SPDB, IB and HXB, which have not released annual reports.
Source: Company data.

Figure 15: NPL coverage of large banks has recovered noticeably...



Note: 2019 data for JSBs does not include SPDB, IB and HXB, which have not released annual reports.
Source: Company data.

Figure 16: ...and most banks have strengthened NPL recognition standard



Note: 2019 data for JSBs does not include SPDB, IB and HXB, which have not released annual reports.
Source: Company data.

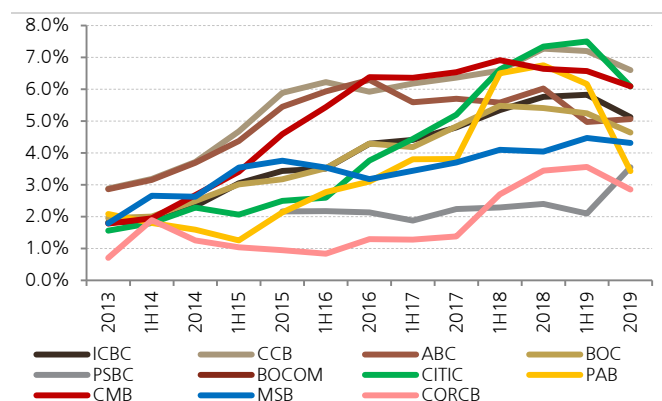
JSB could be impacted more on higher exposure to private sector

In the last credit cycle in 2013-19, we believe a majority of the NPLs recognised were from corporate loans to POEs, which generally have fewer financial resources and weather down cycles not as well as SOEs. This is evidenced by the elevated NPL ratios reported by listed banks on manufacturing sector and wholesale & retail sector, which generally consist of a much higher share of private-owned entities (POE) as well as small-/ medium-sized enterprises (SMEs) than other sectors.

For China banks under our coverage, NPL ratios of manufacturing sector, and wholesale & retail sector have been trending up over the past several years, and most have reached a peak-level of 7% and 10%, respectively (Figure 17 and Figure 18). Excluding these two sectors, NPL ratios of the remaining domestic corporate loan book have remained far lower at below 1.5% for most banks (Figure 19).

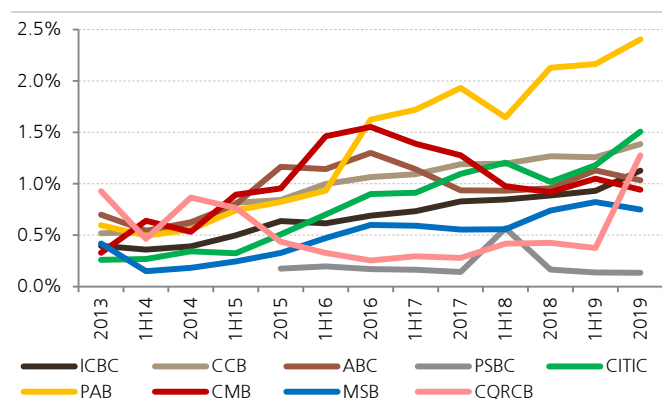
Given the higher risks for lending to the manufacturing and wholesale & retail sectors, most banks have been shrinking their exposure to these two sectors in the past (Figure 20). Excluding PSBC, MSB and CQRCB, other banks among our coverage in aggregate reported 12% decline in loan balance to manufacturing sector during 2014-19, and 33% decline for wholesale & retail sector.

Figure 17: NPL ratio: Manufacturing sector



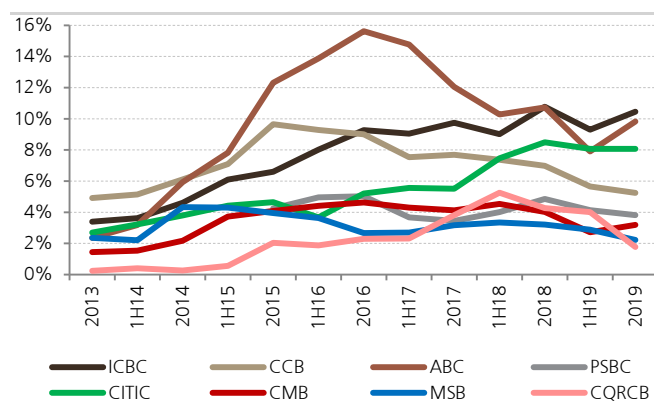
Note: For big four banks, overseas corporate loan books are excluded.
Source: Company data, UBS estimates

Figure 19: NPL ratio: Other sectors



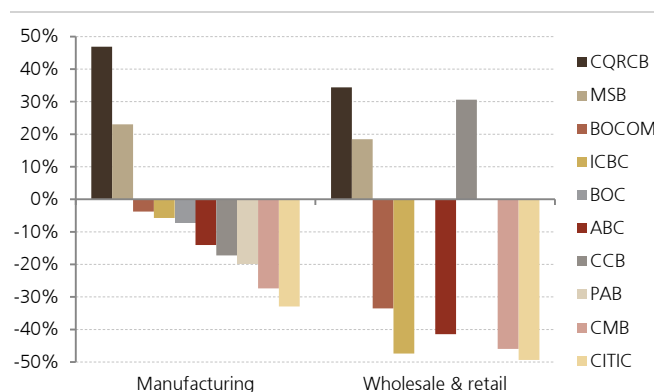
Note: For big four banks, overseas corporate loan books are excluded. Other sectors refer to corporate loan book excluding manufacturing sector, and wholesale & retail sector (if disclosed).
Source: Company data, UBS estimates

Figure 18: NPL ratio: Wholesale & retail sector



Note: For big four banks, overseas corporate loan books are excluded.
Source: Company data, UBS estimates

Figure 20: Cumulative change in loan balance in 2014-19



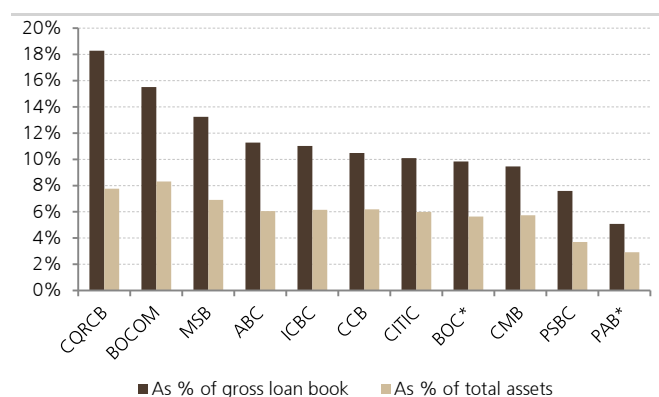
Note: BOC and PAB do not disclose loans to wholesale & retail sector.
Source: Company data

With manufacturing and wholesale & retail sectors likely hit harder by the COVID-19 outbreak and their higher inherent risks, we think banks with higher exposure to these sectors may be more at risk. Among the banks we cover, CQRCB, BOCOM and MSB have the highest combined exposure to these two sectors by the end of 2019, while PSBC and PAB were among the lowest.

Apart from industry breakdown, banks' exposure to the private sector could offer a different angle to gauge their potential bad debt pressure. With the POEs, in particular SMEs, generally more financially vulnerable to external shocks, we believe banks with higher exposure to the private sector could be under more NPL pressure, even though these new NPLs may only be recognised gradually due to regulators' NPL forbearance.

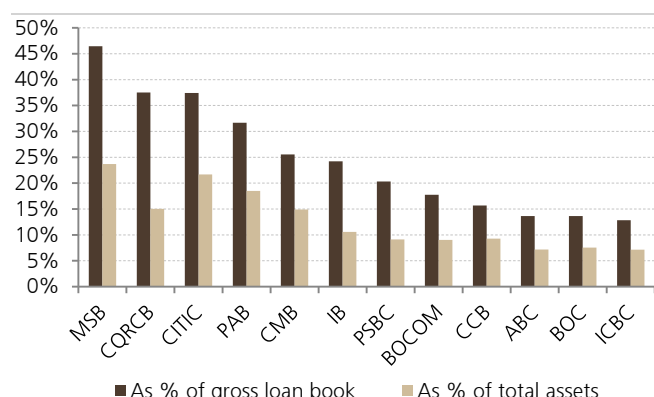
Contrary to market concerns of 'national service' by state-owned banks, we estimate that the state-owned banks had the lowest exposure to private sector as percentage of their total loan books, which stood at 12-16% by end-2018 (although by absolute number their loan balances to the private sector are higher than those of other banks). We believe this is due to a much stronger SOE customer base at the state-owned banks. Exposure to the private sector is generally higher at joint-stock banks (JSBs). Among banks we cover, MSB had the highest exposure at 46.5% at end-2018, followed by CQRCB (37.5%) and CITIC Bank (37.4%).

Figure 21: Combined exposure to manufacturing and wholesale & retail sectors (Dec-2019)



Note: BOC and PAB do not disclose loans to wholesale & retail sector.
Source: Company data, UBS estimates

Figure 22: Exposure to private enterprises (Dec-2018)



Note: Include loans to POE booked under both corporate loan book and retail loan book.
Source: Company data, UBS estimates

Banks with higher reserve buffer and capital ratios are better positioned

With the banking sector NPLs set to rise over the coming years and the private sector more vulnerable to short-term shocks, we believe banks with smaller exposure to the private sector would fare better than peers. In addition, we think banks with stricter NPL recognition standard prior to the coronavirus outbreak (i.e. higher NPL/ 90-day+ overdue ratio), higher risk reserves, higher ROE and higher capital ratios would be better positioned to weather the upcoming challenges. Among the banks we cover, CMB and PSBC stand out for having the best asset quality indicators, while CCB, BOC, ABC, and CQRCB appear to have implemented stricter NPL recognition standard given a high NPL/ 90-day+ overdue ratio.

In terms of capital strength, CCB and ICBC have the highest capital ratios by the end of December 2019. Banks with higher ROE are also preferred due to a stronger organic capital generation capabilities, which in turns imply abilities to maintain stable dividend pay-outs.

Figure 23: Summary of key ratios

	ICBC	CCB	BOC	ABC	BOCOM	PSBC	CMB	CITIC	PAB	MSB	CQRCB
Asset quality											
NPL ratio	1.43%	1.42%	1.36%	1.40%	1.47%	0.86%	1.16%	1.65%	1.65%	1.56%	1.25%
SML ratio	2.71%	2.93%	2.22%	2.24%	2.45%	0.66%	1.17%	2.22%	2.01%	2.96%	2.32%
NPL + SML ratio	4.14%	4.35%	3.58%	3.64%	3.92%	1.52%	2.34%	3.87%	3.65%	4.52%	3.57%
NPL/ 90-day+ overdue ratio	130%	171%	179%	167%	127%	148%	118%	132%	122%	114%	179%
NPL coverage	199%	228%	182%	289%	171%	389%	426%	175%	183%	156%	380%
Provision-to-loan ratio	2.9%	3.2%	2.6%	4.0%	2.5%	3.4%	5.0%	2.9%	3.0%	2.4%	4.8%
Capital strength											
ROAE	13.1%	13.4%	11.8%	12.7%	11.4%	11.5%	16.8%	11.1%	10.2%	12.4%	12.3%
Dividend payout ratio	30%	30%	30%	30%	30%	30%	32%	25%	15%	30%	27%
CET-1 ratio	13.2%	13.9%	11.3%	11.2%	11.2%	9.9%	11.9%	8.7%	9.1%	8.9%	12.4%

Source: Company data

Are Chinese banks' dividends at risk?

Following announcement of dividend cancellation by HSBC and a couple of European banks, a common question among investors is: are Chinese banks' dividends also at risk? This question could be further boiled down to two smaller

questions: 1) can China banks maintain current payout ratios? 2) will China banks report a decline in FY20 earnings?

In order to assess how sustainable banks' current dividend payout ratio are, we conduct a stress test on CET-1 ratio, assuming banks to maintain 10% asset growth, zero profit growth, and constant dividend payout throughout 2020-22. In different scenarios, we assume RWA density (RWA/ asset ratio) to: 1) stay constant to the level in Dec-19; 2) increase by 0.5ppt per year; 3) increase by 1ppt per year. The rationale for assuming higher RWA density is twofold: 1) the regulator is calling for greater credit support to the real economy, which would imply higher corporate loan growth; 2) consumer loans may slow down further in the near term given the COVID-19 impacts. Given banks will generally formulate capital planning for multiple years ahead, we take a three-year horizon and compare each bank's pro-forma CET-1 ratio by 2022 with regulatory requirement, and screen for banks that may need to reduce dividend payout so as to preserve capital.

While all banks under our coverage would still have a CET-1 ratio above current minimum regulatory requirements under all scenarios, certain banks including CITIC Bank, PAB and MSB, are clearly under greater stress to maintain compliant. Their CET-1 ratio would be even more stretched if additional capital buffer is implemented under the [domestic systematically important banks \(D-SIBs\) framework](#) that has yet to come. Overall, we see a higher risk to the dividend payout ratios at CITIC Bank and MSB.

Figure 24: Stress test on sustainability of banks' current dividend pay-outs

	ICBC	CCB	BOC	ABC	BOCOM	PSBC	CMB	CITIC	PAB	MSB	CQRCB
CET-1 ratio (Dec-19)	13.2%	13.9%	11.3%	11.2%	11.2%	9.9%	11.9%	8.7%	9.1%	8.9%	12.4%
Dividend payout ratio (FY19)	30%	30%	30%	30%	30%	30%	32%	25%	15%	30%	27%
RWA/ asset ratio (Dec-19)	62%	59%	62%	62%	62%	49%	62%	76%	71%	77%	69%
Current minimum CET-1 ratio	9.0%	8.5%	9.0%	8.5%	7.5%	7.5%	7.5%	7.5%	7.5%	7.5%	7.5%
Assume 10% asset growth, zero profit growth, and constant dividend payout ratio in 2020-22											
Pro-forma CET-1 ratio by Dec-22											
1) RWA/ assets stay constant	12.5%	13.2%	10.5%	10.6%	10.3%	9.3%	12.0%	8.1%	8.7%	8.3%	11.6%
2) RWA/ assets +0.5ppt per year	12.2%	12.9%	10.3%	10.3%	10.1%	9.0%	11.7%	7.9%	8.5%	8.2%	11.3%
3) RWA/ assets +1ppt per year	11.9%	12.5%	10.0%	10.1%	9.9%	8.7%	11.4%	7.8%	8.4%	8.0%	11.1%

Source: Company data, UBS estimates

For the big 4 banks, their capital adequacy would still maintain a decent safety margin above regulatory requirements under our stress test, especially for ICBC and CCB which have the highest CET-1 ratio currently. Separately, with the government's fiscal revenue under pressure following large scale of fees and tax cuts over the past two years, we think dividend income from the big 4 banks would still remain an important part of the government's budget of fiscal revenue, albeit this contributed to a relatively small share of the overall fiscal revenue at 0.7%. In fact, in the 2019 Government Work Report, there was mentioning of target to increase fiscal revenue by raising profit distribution from certain state-owned financial institutions and central SOE. Therefore we believe this will also put some pressure on the big 4 banks to at least maintain their current payout ratio at 30%.

Figure 25: Dividends from big 4 banks contributed to 0.7% of government fiscal revenue

Rmb bn	Holdings (%)			2018 dividends (paid in 2019)	Share of MOF & Central Huijin	Fiscal revenues 2019			
	MOF	Central Huijin	Total			General	Govt funds	State capital	Total
ICBC	34.6%	34.7%	69.3%	89	62				
CCB		57.1%	57.1%	77	44				
ABC		64.0%	64.0%	61	39				
BOC	39.2%	40.0%	79.2%	54	43				
Big 4				281	187	19,038	8,452	396	27,886
- as % of fiscal revenues						1.0%	2.2%	47.3%	0.7%

Source: Company data, UBS

In terms of earnings, as discussed above we expect the industry earnings growth to decline by 5% given both NIM pressure and higher credit costs. That said, we expect the big 4 banks would be able to avoid maintain flat earnings growth in 2020, given their higher buffer in risk reserves. On the other hand, we expect negative earnings growth for BOCOM and most JSBs except CMB and PAB. Specifically, we see the absolute amounts of dividends by CITIC and MSB of being more at risk for being double hit on both payout ratio and earnings.

We currently expect large banks to maintain payout ratio at 30% unchanged, and a flat earnings growth for 2020E, which would imply dividend yields of 5.4%-6.9% at current closing price. We think such levels of dividend yields are attractive in the current low-interest rate environment, especially given a relatively high level of certainty on dividend amounts. In a stressed scenario where we assume 2020 EPS decline by 20% but dividend payout ratios remain unchanged, dividend yields of large banks would fall to 4.4-5.5%, which are still quite attractive.

Figure 26: Dividend yields of large banks appears attractive even if earnings decline

Stock code	Price (LC)	UBSe (FY20e)				If 2020E NPAT down 10%			If 2020E NPAT down 20%		
		NPAT growth	Payout ratio	DPS (Rmb)	Dividend yield	DPS (Rmb)	Payout ratio	Implied dividend yield	DPS (Rmb)	Payout ratio	Implied dividend yield
CCB 0939.HK	6.13	0.8%	30%	0.32	5.7%	0.28	30%	5.1%	0.25	30%	4.5%
ICBC 1398.HK	5.15	0.2%	30%	0.26	5.5%	0.23	30%	4.9%	0.21	30%	4.4%
ABC 1288.HK	3.05	0.6%	30%	0.18	6.6%	0.16	30%	5.7%	0.14	30%	5.1%
BOC 3988.HK	2.93	0.6%	30%	0.19	6.9%	0.17	30%	6.2%	0.15	30%	5.5%
PSBC 1658.HK	4.61	5.0%	30%	0.21	5.0%	0.18	30%	4.3%	0.16	30%	3.8%
BOCOM 3328.HK	4.64	-5.3%	30%	0.30	7.0%	0.27	30%	6.4%	0.24	30%	5.7%
CMB 3968.HK	33.95	5.8%	33%	1.25	4.0%	1.06	33%	3.4%	0.94	33%	3.0%
CITIC 0998.HK	3.70	-8.9%	25%	0.22	6.4%	0.21	25%	6.3%	0.19	25%	5.6%
PAB 000001.SZ	12.61	5.3%	10%	0.17	1.4%	0.15	10%	1.2%	0.13	10%	1.0%
MSB 1988.HK	5.60	-5.2%	30%	0.35	6.8%	0.33	30%	6.5%	0.30	30%	5.8%

Closing price as of Apr 3, 2020.

Source: Company data, Thomson Reuters, UBS estimates

Will large Chinese banks reduce dividends as European banks did?

In end-March, the bank regulator for the top 117 lenders in the EU asked firms to halt pay-outs until at least October 2020 to conserve capital resources to protect banks and their customers in the near term. Afterward, UK regulator also asked banks to withhold 2019 final dividend payment, halt buybacks and to not distribute equity dividend during 2020. On 1 April, HSBC and Standard Chartered announced they would cancel dividends and stock buybacks. We've seen rising concerns across the street that Chinese financial regulator will also follow the suit to regulate domestic banks to lower payout ratio or even withhold dividend payment.

However, we believe most banks will maintain their announced dividend payout unchanged for, especially for those large SOE banks. As the MOF is the controlling shareholder of all large SOE banks, and the government may need these banks' dividend income to support fiscal policies, ie dividend income from big 4 plus BOCOM's 2018 earnings payout (paid in 2019) accounted for 1% of budget fiscal income or around 8% of fiscal deficit. All our covered banks have announced their 2019 dividend payout, which may still need the approval from annual general meeting. According to historical experience, the AGM would be hosted likely in late-May to June, and the ex-dividend date are likely ranged late-May to early July for H-share stocks, and A-share stocks may mostly ex-dividend in July.

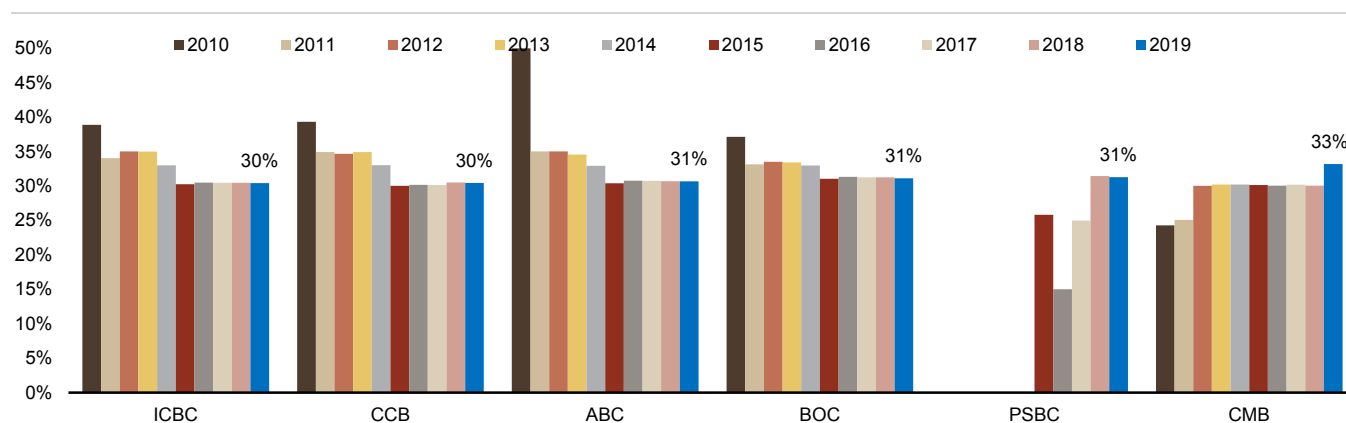
Figure 27: Our covered banks' AGM/ex-div date in the past five years

Ticker	Dividend yield - 2019	Annual General meeting					Ex-div date					
		2015	2016	2017	2018	2019	2015	2016	2017	2018	2019	
UBS H-share coverage												
CCB	0939.HK	5.5%	15-Jun	17-Jun	15-Jun	29-Jun	21-Jun	23-Jun	22-Jun	22-Jun	9-Jul	2-Jul
ICBC	1398.HK	5.7%	19-Jun	24-Jun	27-Jun	26-Jun	20-Jun	29-Jun	29-Jun	3-Jul	5-Jul	25-Jun
PSBC	1658.HK	4.9%	na	na	8-Jun	28-Jun	30-May	na	na	13-Jun	3-Jul	4-Jun
ABC	1288.HK	6.6%	29-Jun	27-Jun	28-Jun	11-May	30-May	2-Jul	29-Jun	5-Jul	17-May	11-Jun
BOC	3988.HK	7.2%	17-Jun	7-Jun	29-Jun	28-Jun	17-May	25-Jun	16-Jun	6-Jul	5-Jul	23-May
BOCOM	3328.HK	7.5%	29-Jun	27-Jun	22-Jun	21-Jun	21-Jun	20-May	29-Jun	26-Jun	4-Jul	25-Jun
CMB	3968.HK	3.9%	19-Jun	28-Jun	26-May	27-Jun	27-Jun	24-Jun	5-Jul	6-Jun	4-Jul	4-Jul
CITIC	0998.HK	7.2%	26-May	26-May	26-May	25-May	24-May	na	30-May	31-May	29-May	28-May
MSB	1988.HK	7.3%	18-Jun	7-Jun	16-Jun	21-Jun	21-Jun	23-Jun	10-Jun	20-Jun	25-Jun	25-Jun
QRCB	3618.HK	8.5%	19-Jun	17-Jun	5-May	27-Apr	26-Apr	23-Jun	22-Jun	9-May	2-May	30-Apr
Huishang	3698.HK	5.9%	na	20-Jun	22-Jun	30-Jun	30-Jun	3-Jun	22-Jun	27-Jun	4-Jul	3-Jul
Average		6.8%										
UBS A-share coverage												
CCB-A	601939.SH	4.8%	15-Jun	17-Jun	15-Jun	29-Jun	21-Jun	1-Jul	30-Jun	30-Jun	17-Jul	10-Jul
ICBC-A	601398.SH	5.1%	19-Jun	24-Jun	27-Jun	26-Jun	20-Jun	7-Jul	8-Jul	11-Jul	13-Jul	3-Jul
CMB-A	600036.SH	3.7%	19-Jun	28-Jun	26-May	27-Jun	27-Jun	3-Jul	13-Jul	14-Jun	12-Jul	12-Jul
PAB	000001.SZ	2.0%	2-Apr	19-May	29-Jun	20-Jun	30-May	13-Apr	16-Jun	21-Jul	12-Jul	26-Jun
MSB	600016.SH	6.5%	18-Jun	7-Jun	16-Jun	21-Jun	21-Jun	7-Jul	24-Jun	6-Jul	5-Jul	5-Jul
BOC-A	601988.SH	5.5%	17-Jun	7-Jun	29-Jun	28-Jun	17-May	3-Jul	24-Jun	14-Jul	13-Jul	3-Jun
ABC-A	601288.SH	5.4%	29-Jun	27-Jun	28-Jun	11-May	30-May	10-Jul	7-Jul	13-Jul	25-May	19-Jun
CITIC-A	601998.SH	4.7%	26-May	26-May	26-May	25-May	24-May	na	25-Jul	24-Jul	3-Jul	22-Jul
Average		4.6%										

Dividend yield as of April 3, 2020.

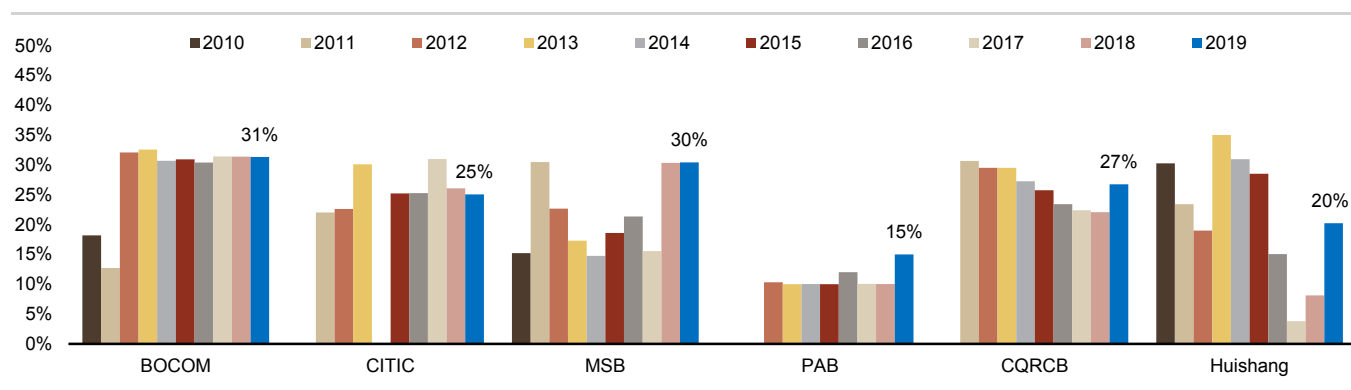
Source: Company data, WIND

Figure 28: Large banks' dividend payout ratios were relatively stable in the past five years



Source: Company data

Figure 29: ...while JSB and other smaller banks saw higher volatility in payout



Source: Company data

PIVOTAL QUESTIONS

[return](#) ↑**Q: What's the NIM outlook for China banks?**

UBS VIEW

Relative to global peers, China banks are operating in a much better rate environment due to more restrained monetary policy easing. That said, we expect an average NIM decline of 5bp in 2020 among China banks under our coverage (big 4 average -6bp; JSB average -5bp), driven by ongoing LPR adoption on existing loans, likely more LPR cuts ahead, and regulatory directive for lower financing costs to MSEs. Potential deposit benchmark rate cut ahead after CPI falls notably could provide some relief to the NIM pressure. Relative to large banks, we see more upside risk to NIM for JSBs given current downward pressure on market trends will likely benefit the funding costs of net interbank borrowers.

EVIDENCE

We summarise the various factors that we think could affect NIM and impact individual banks in Figure 36 and Figure 37. Among these factors, LPR adoption on existing loans and more LPR cuts ahead will likely remain the dominant drivers for NIM downtrend. With the central bank ensuring ample liquidity to the market, market rates have trended down significantly at a much larger magnitude than that seen last year.

WHAT'S PRICED IN?

Since the COVID-19 outbreak, China bank stocks have been more resilient with MSCI China Banks Index outperforming developed market banking indices by 24-34%, which we believe reflects better NIM and earnings than global peers.

China has been more restrained amid this round of global rate cuts...

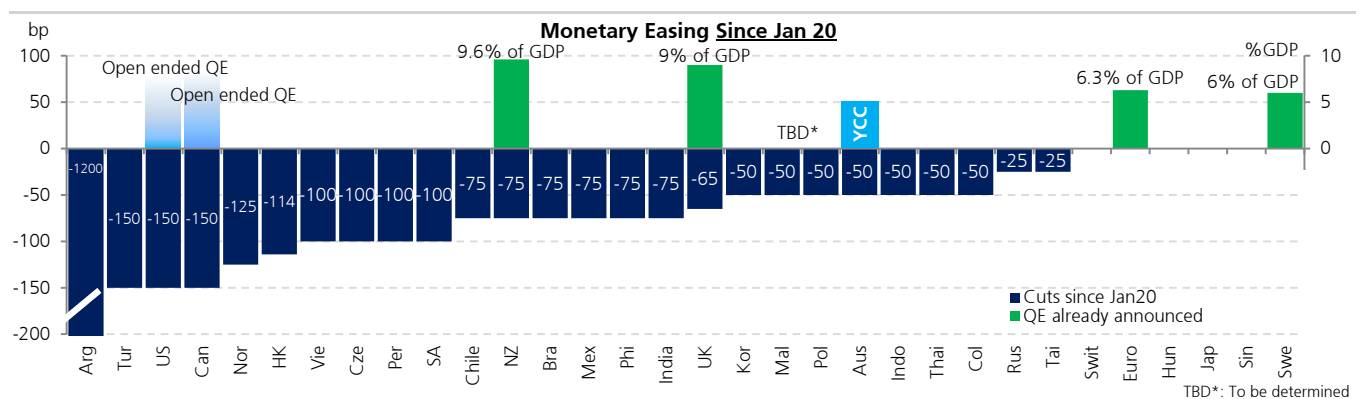
Since the COVID-19 outbreak turned into global pandemic and mobility restrictions are imposed on countries, global policymakers have announced [2.9% of global GDP in fiscal stimulus](#) to counteract the downturns. In terms of monetary policy, most of the DM central banks have already cut rates since Jan 20. Following US Fed's decision to cut policy rate straight to zero on Mar 16, virtually all of DM has hit the zero lower bound (see [UBS global monetary stimulus tracker](#)).

In comparison, reactions from China central bank so far have been much more restrained than what have been taken by the DM and relative to China's credit stimulus in previous downturns. Since Jan 20, China has lowered its 1-year LPR by only 10bp, and our China econ team expects another 20bp cut upcoming in April. To recall, the PBOC chief Yi Gang has commented earlier in last year that China is in no rush to follow the global easing trend, and the current space for normal monetary policy should be cherished. As such, although we expect China's policy easing is set to strengthen further, we believe this will continue to follow a careful and gradual manner, and expect no massive credit or property stimulus.

Putting the banking sector in this context, with China's rate environment still much better than that of most DM and careful stance by policymakers, we think China banks will be facing relatively less pressure on NIM and earnings compared to peers in the DM. Since the COVID-19 outbreak, China bank stocks have been

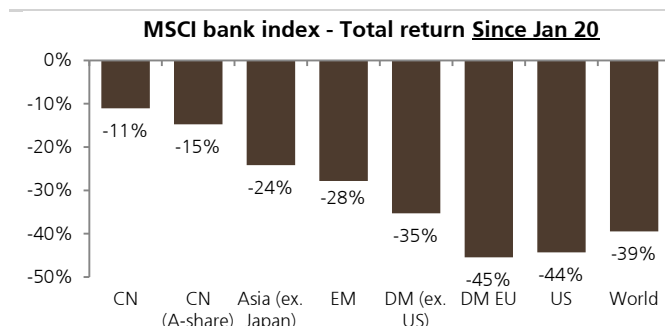
more resilient, with MSCI China Banks Index outperforming major global banking indices significantly (Figure 31).

Figure 30: Overview of monetary & balance sheet stimulus provided since January 20



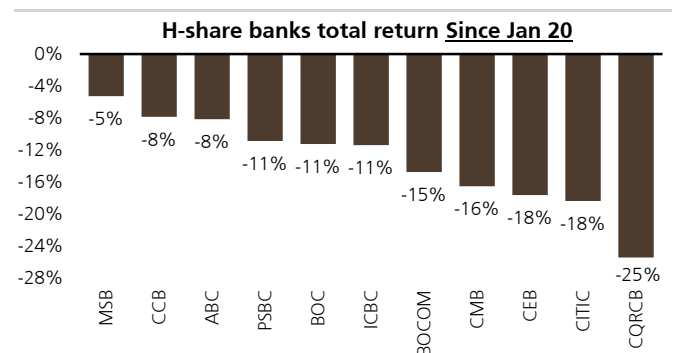
Source: [UBS global monetary stimulus tracker](#), Haver

Figure 31: China banks outperformed major global banking indices since COVID-19 outbreak



Pricing date as of April 3, 2020.
Source: Datastream

Figure 32: With H-share banks, large banks generally outperformed



Pricing date as of April 3, 2020.
Source: Datastream

...although NIM pressure on banks inevitable with ongoing LPR reform and policy easing

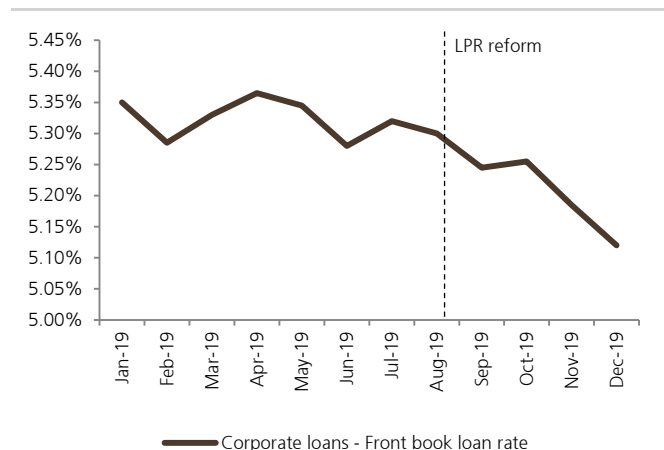
Following the adoption of loan prime rate (LPR) on the pricing of new loans since August 2019, loan rates of new corporate loans have been trending downward along with the multiple rate cuts on LPR (Figure 33). Latest data from PBOC suggests that the loan rates on new corporate loans have likely declined at an accelerated pace in February 2020 (loan rates of general loans excluding mortgages declined by 20bp from Jun-19 to Dec-19, and by 25bps from Dec-19 to Feb-20), amid the outbreak of coronavirus (COVID-19).

However, the impacts of declining loan rates have yet to be fully reflected in banks' NIM, before the switch of existing loan book's pricing mechanism to LPR is completed. After the completion of LPR adoption by end of August 2020, banks' NIM would be more sensitive to the central bank's policy rate in an easing environment. Given the regulator's intention to contain property prices, we believe 5-year LPR is likely to decline at a milder pace than 1-year LPR, which should partly ease the NIM pressure on banks with higher share of mortgages. We previously

estimated that every 100bp LPR decline would lower banks' NIM by 12-21bp on a 12m horizon, all else equal (Scenario 3 in our [earlier report](#)).

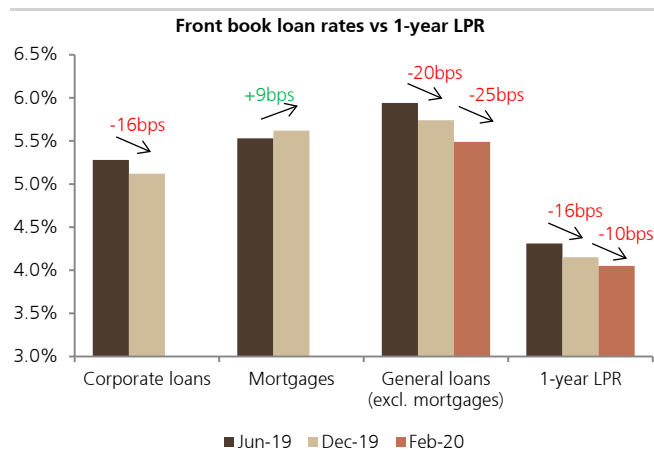
Looking ahead, we expect more monetary easing amid a weaker growth outlook, including more liquidity support through RRR cuts, on-lending and MLF facilities. We currently expect 10-20bp policy-rate cuts (in addition to expected 20bp MLF/LPR cut in April).

Figure 33: New corporate loan rate started to trend down post LPR reform...



Source: PBOC

Figure 34: ...with the pace of decline likely accelerated in Q120



Source: PBOC

Potential deposit benchmark rate cut a cushion to NIM pressure

Following earlier comments by central banks officials that the PBOC could make timely and appropriate adjustment to the deposit benchmark rates (BMR) considering factors including economic growth and price levels, there is rising market expectation for an upcoming deposit BMR cut. Given the recent rate cuts by US Fed, we think a deposit BMR cut seems increasingly likely in the second half of this year, after China's CPI inflation trends down from current elevated level. We think a potential deposit BMR cut will likely be moderate (<25bp).

In our [sensitivity analysis](#), we estimate that every 10bp cut in deposit BMR could result in net accretion of 3-6bp for banks we cover, assuming the deposit BMR cut is instantly reflected in banks' deposit costs. In reality, the impacts will be reflected over time as existing deposits mature and are repriced. We expect banks with higher proportion of deposits in funding mix, higher share of time deposit, and lower overseas exposure, are likely to benefit more.

While a deposit BMR cut is positive to banks' NIM, we think this will only partially offset the downward pressure on NIM, as a deposit BMR cut will make room for banks to be more willing to cut their lending rates amid the policy goal to support economic growth and lower financing cost of the real economy.

Figure 35: Net impacts on NIM from deposit BMR cut and market rate decline

As of 1H19	ICBC	CCB	ABC	BOC	PSBC	BOCOM	CMB	CITIC	PAB	HXB	IB
Assume 10bps deposit BMR cut											
Impact on NIM (bps)	3.8	3.9	3.4	3.5	5.9	5.0	3.8	5.3	4.8	4.7	5.7
Impact on profits (1H19)	2.4%	2.3%	2.5%	2.3%	6.7%	4.6%	1.9%	4.5%	4.0%	4.9%	4.3%
Assume 25bps deposit BMR cut											
Impact on NIM (bps)	9.5	9.7	8.4	8.8	14.6	12.6	9.5	13.3	11.9	11.8	14.2
Impact on profits (1H19)	6.0%	5.7%	6.4%	5.7%	16.7%	11.4%	4.7%	11.3%	9.9%	12.2%	10.7%

Note: In estimating the net impacts on NIM, we consider the impacts from both a lower deposit cost and declined market rate driven by deposit BMR cut.
Source: Company data, UBS estimates

We see upside risk to JSBs NIM with market rate trending down

Apart from above, there are a couple of factors that could affect banks' NIM this year, including regulatory directive to further lower lending rate to MSE, waiving of overdue charges for enterprises affected by virus, lower market rates, RRR cuts, etc. In the following tables, we discuss how each of these factors could come into play and which banks would potentially be impacted more.

Given the many moving parts involved, some of which are more difficult to quantify, we summarise the potential impacts on individual banks directionally in Figure 37. Overall, we expect a decline in loan yield driven by LPR cuts and weaker loan demand to be a key driver of a downward trend on NIM. A deposit BMR cut, if happens, could provide a large relief to banks' NIM pressure.

With ongoing monetary easing, market rates have already been trending down significantly from the 2019 level, which will benefit funding cost of net interbank borrowers. As such, we see upside risk to JSBs' NIM, especially for those with higher interbank funding exposure such as MSB and CITIC. Among large banks, we expect PSBC may see its NIM hold up better than its peers, given it would benefit the most from a deposit BMR cut, and the NIM accretion from its strategy to further lift LDR and boost online consumer loans that generate attract yield at manageable risk.

Figure 36: Factors that are likely to impact banks' NIM

Factors	Direction	Which banks may be impacted more and why?
Sensitivity to LPR cut	Negative	Consumer lending (i.e. fixed rate) and mortgage should be less impacted by LPR cuts. Banks with higher share of consumer loans and mortgage in loan book should be relatively better positioned (Figure 38).
Cutting financing cost for inclusive finance MSE	Negative	The financial regulator aims to lower financing cost of inclusive finance MSE loans by another 50bp in 2020. Banks with higher share of inclusive finance MSE loans are likely to be impacted more. (Figure 39)
Waiving overdue charges for enterprises affected by virus	Negative	Micro, small, and medium sized enterprises impacted by COVID-19 can apply for extension of interest and principle repayment for the period of Jan 25, 2020 to Jun 30, 2020. We use banks' exposure to private sector as a proxy of exposure to micro, small, and medium sized enterprises. (Figure 40)
Overseas exposure	Negative	Given the massive rate cuts by global central banks after COVID-19 turns into a global pandemic, we expect China banks' exposure loan exposure to be negatively impacted. BOC has the highest overseas loan exposure among China banks (Figure 41).
Lower market rates	Negative/ Positive	Interbank market rates have continued to trend down in 2020. DR007 averages to 2.11% in 2020 YTD, down 42bp versus 2019. In comparison, average level of DR007 in 2019 was 18bp lower than that in 2018 (Figure 42). Banks on a net-borrowing position will benefit from lower market rates.
RRR cut & targeted RRR cut	Positive	The PBOC conducts an annual review on targeted RRR based on banks' lending on inclusive finance areas and implements either 50bp / 150bp RRR cut on banks meeting thresholds. For banks that already qualified for 150bp RRR cut in 2019, this will continue to apply thus no incremental impact. For large banks & JSB that only qualified for 50bp cut in 2019 (i.e. BOC, BOCOM, CMB), they will be qualified for 150bp of RRR cut in 2020, thus equivalent to incremental RRR cut by 100bp.
Potential deposit BMR cut	Positive	We believe a deposit BMR cut is likely this year, which will make room for banks to further lower lending rates to real economy. We expect banks with higher proportion of deposits in funding mix, higher share of time deposit, and lower overseas exposure, are likely to benefit more (Figure 43).
Potential shift in asset mix/ loan mix	Negative/ Positive	We expect PSBC's asset yield to benefit from a continued rise in LDR, and greater allocation to consumer loans. Over the past three years from 2017-19, most JSBs have scaled up their loan allocation to non-mortgage consumer credit which has contributed to higher asset yields. With consumer credit growth likely to take a hit in 2020 due to COVID-19 impacts, we expect corporate loans to account for a higher share in JSB's net increase in loans in 2020, which could weigh on their asset yields (Figure 44 and Figure 45).

Source: UBS estimates

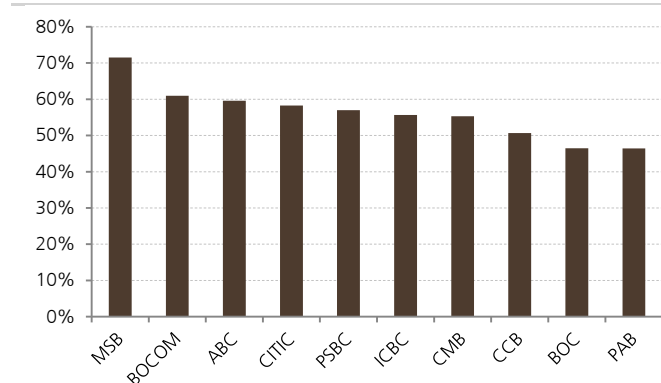
Figure 37: Potential impact of NIM drivers on individual banks

Positive ("+") / Negative ("-") impact to NIM	ICBC	CCB	ABC	BOC	PSBC	BOCOM	CMB	CITIC	PAB	MSB
Sensitivity to LPR cut	--	--	--	-	--	--	--	--	-	---
Cutting financing cost for inclusive finance MSE	-	-	-	-	--	-	--	-	-	---
Waiving overdue charges for enterprises impacted by virus	-	-	-	-	-	-	--	--	-	---
Overseas exposure	--	--	-	---	-	--	-	-	-	-
Lower market rates	--	--	--	+	---	++	++	+++	++	+++
Clamp down of non-compliant deposit products	+	+	+	+	+	+	+	+	+	+
RRR cut & targeted RRR cut	+	+	+	++	+	++	++	+	+	+
Potential deposit BMR cut	++	++	++	+	+++	++	+	++	++	++
Potential shift in asset mix/ loan mix					+++	-	-	-	--	-

Note: We use "+" and "-" to denote positive and negative impact to NIM, respectively. The number of "+" / "-" denotes the degree of impacts.

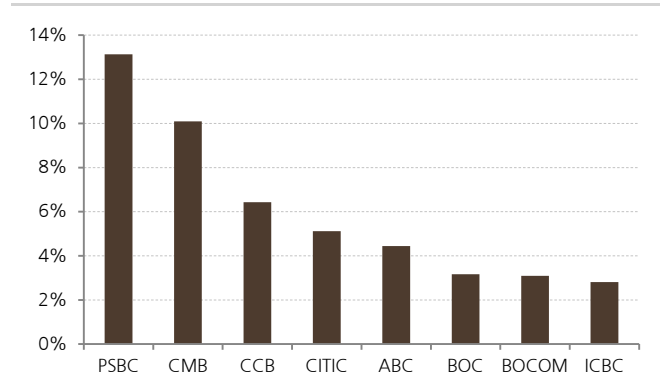
Source: UBS estimates

Figure 38: Share of loan book to domestic enterprises



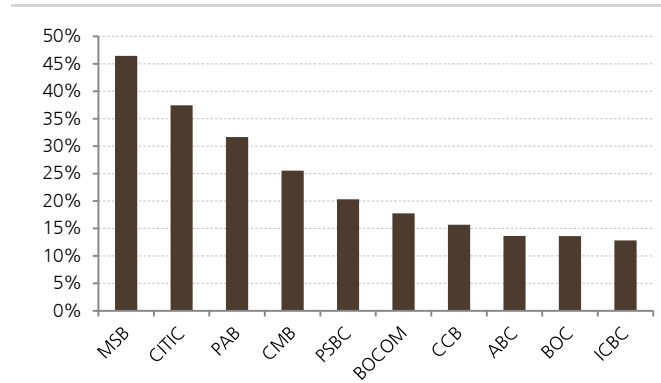
Note: Both business loans booked under corporate and retail loan book are included.
Source: Company data, UBS estimates

Figure 39: Share of loan book to inclusive finance MSE



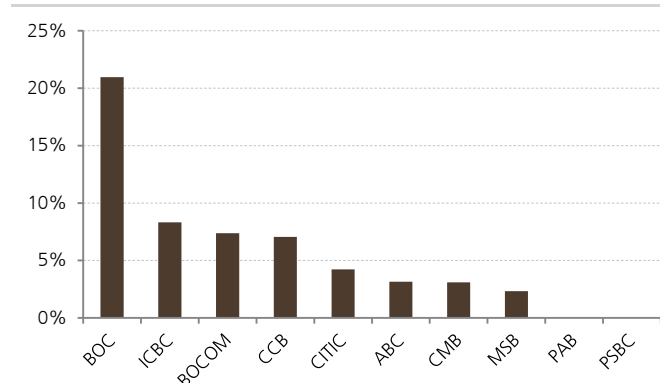
Source: Company data

Figure 40: Share of loan book to private enterprises



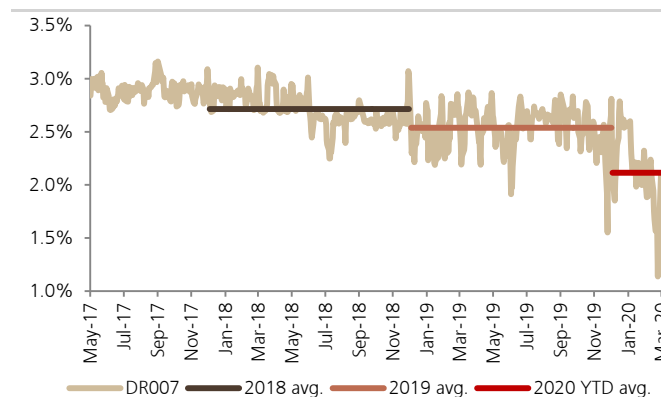
Note: Both business loans booked under corporate and retail loan book are included.
Source: Company data, UBS estimates

Figure 41: Overseas exposure in loan book



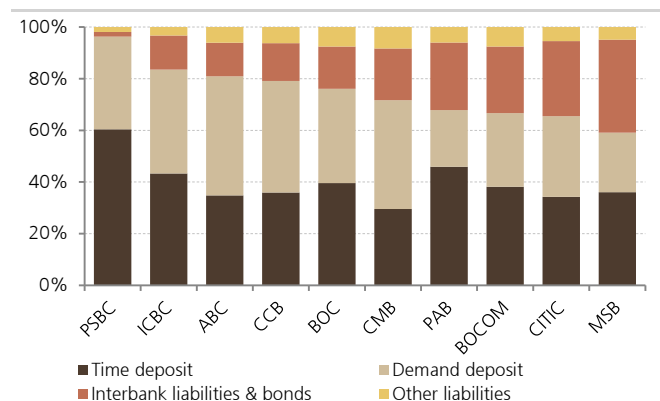
Source: Company data, UBS estimates

Figure 42: Daily interbank repo rate (DR007)



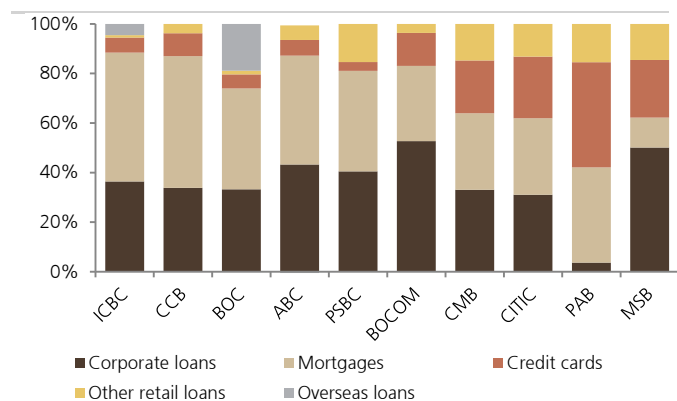
Source: CEIC, UBS

Figure 43: Funding mix (Dec-2019)



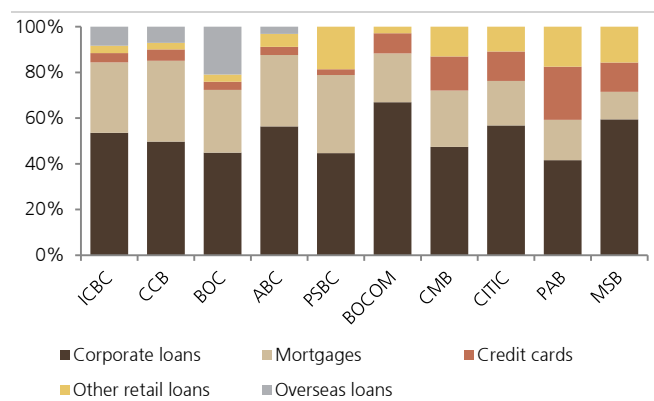
Source: Company data

Figure 44: Allocation of net increase in loans (2017-19)



Source: Company data, UBS

Figure 45: Loan mix (Dec-2019)



Source: Company data

PIVOTAL QUESTIONS

[return](#) ↑**Q: Is the outlook for retail banking more negative than corporate banking?****UBS VIEW**

Yes, in the short-term. We expect challenges to consumer loans in the near-term on both loan growth and asset quality, given rising unemployment pressure, weakened income growth outlook, and significant disruption to normal consumption activities. We expect retail loan growth could slow to 7% YoY in 2020 from 16% in 2019. That said, we remain constructive on the medium-term outlook of retail banking, given China's path towards a more consumption-led economy and as the trend of consumption upgrade should continue. We downgrade PAB to Neutral from Buy as its asset quality could be under pressure due to its higher exposure to non-mortgage consumer credit.

EVIDENCE

City lockdowns and quarantines have resulted in substantially lower consumption growth, with Jan-Feb retail goods sales down 17.6% YoY. The most recently released urban unemployment rate jumped to 6.2% in February, compared to a narrow range of 4.8-5.4% since 2017. In a recent media conference, CBIRC confirmed that credit cards and home equity loans are contributing to most of the rise in NPL and SML.

WHAT'S PRICED IN?

Share prices of CMB-H and Ping An Bank have declined 14%/ 22% since the virus outbreak, reflecting market concern over the outlook for retail-focused banks. With retail banking weakness likely to persist in H120, we think the share prices of CMB and Ping An Bank will continue to underperform, given they are still trading at a large valuation premium against large banks after a substantial expansion of valuation premium in 2019.

Near-term pressure on delinquency and loan growth**China under rising unemployment pressure**

China has taken unprecedented efforts to contain the spread of COVID-19, implementing city lockdowns, movement restrictions, and delayed work resumption post Chinese New Year. While the nationwide shutdown helped to contain virus spread quickly, it came with the cost of a halt of economic activities for a few weeks before recent gradual recovery, as well as a sharp rise in unemployment.

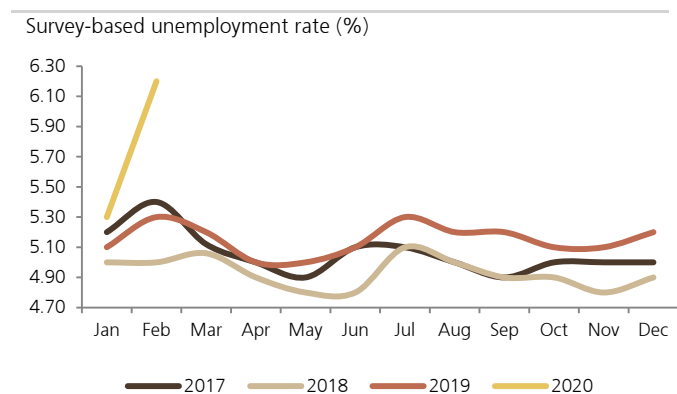
A couple of high-frequency data have all pointed to rising unemployment pressure. The official survey-based nationwide urban unemployment rate jumped to 6.2% in February, compared to a narrow range of 4.8-5.4% since 2017. The urban unemployment rate for 31 large cities at 5.7% was better than nationwide average, but was also at a record high since 2013.

Urban new job creation, which is one of the government's annual policy target on labour market, has also shown notable weakness. Urban new job creation in Jan-Feb totalled 1.08mn, compared to an average of 1.82mn over the past seven years. The PMI sub-indices on employment for both manufacturing and non-manufacturing sectors have both plummeted to levels far below that seen during

the 2008 Great Financial Crisis. Our channel checks are also consistent with above macro data, as an NPL collection company indicated that it has found it easier to hire new staff in Q1 this year.

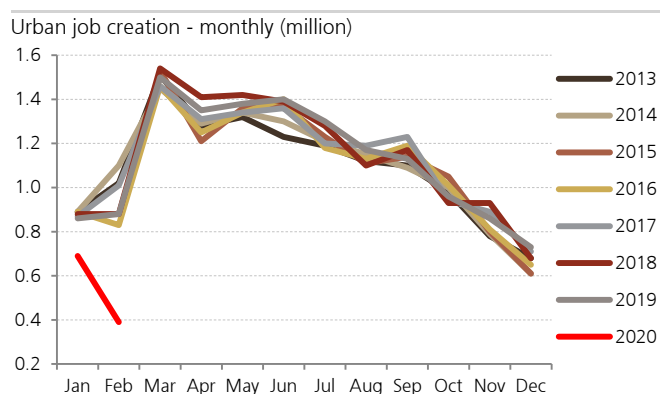
On the positive side, with domestic spread of COVID-19 largely under control, the pace of work resumption has accelerated in March (see [UBS China Daily Activity Tracker](#)), with 71.7% of small & medium sized enterprises (SME) nationwide resumed work by March 24, compared to 29.6% on February 23. That said, despite the gradual work resumption, we believe a majority of these businesses are still operating at far below full capacity. With COVID-19 now an evolving global pandemic, a sharp contraction of external orders is widely expected, which will put further pressure on export companies.

Figure 46: Unemployment rate rose noticeably in Feb



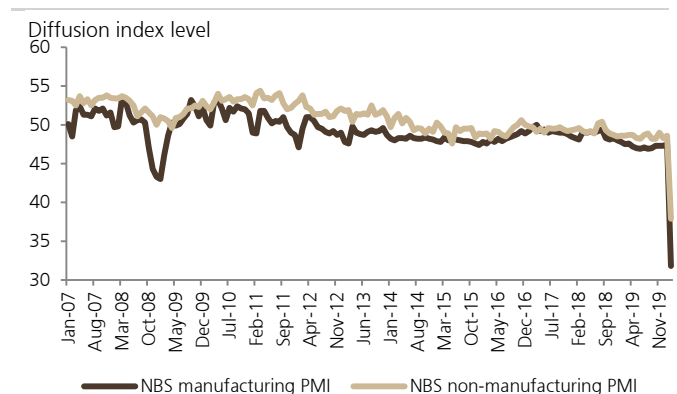
Source: CEIC

Figure 47: Urban monthly job creation plummeted



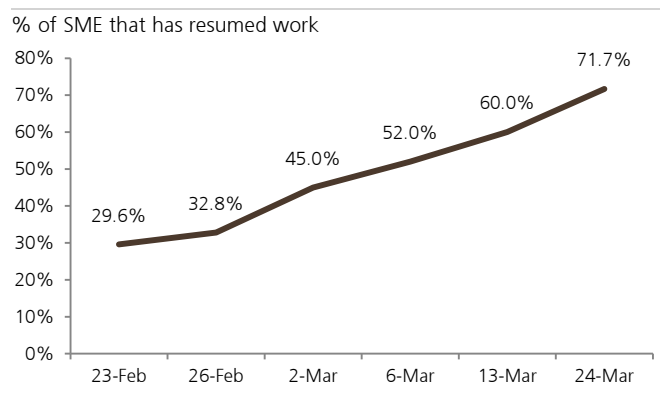
Source: CEIC

Figure 48: PMI employment sub-indices dipped to record low



Source: CEIC

Figure 49: Work resumption ratio by SME has improved notably entering into Mar



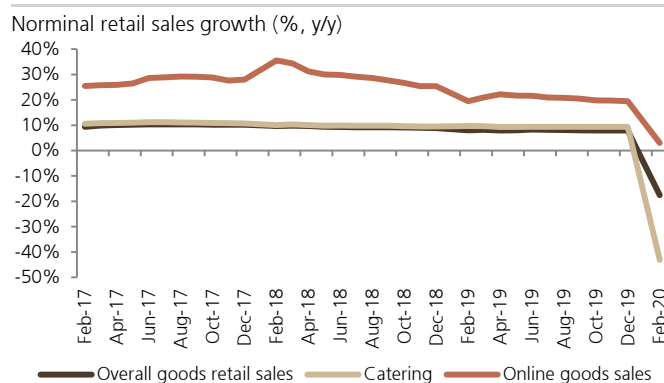
Source: MIIT

Consumption and retail loan volume took a hard hit in Jan-Feb

City lockdown and quarantine have resulted in plummeted consumption growth in Jan-Feb. Latest NBS data shows that Jan-Feb retail goods sales declined by 17.6% YoY with catering down 43% YoY and auto sales down 37% YoY. Online sales of goods were relatively resilient, posting a growth of 3% YoY.

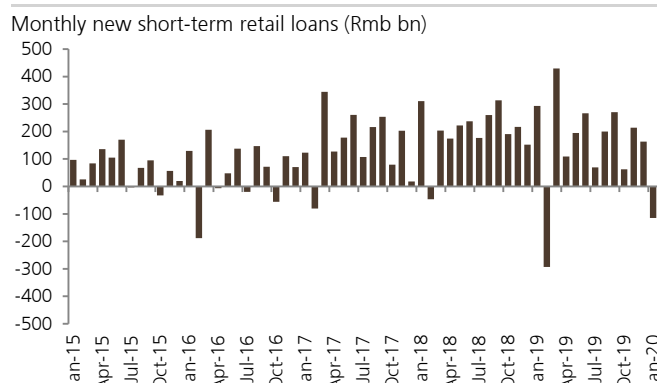
Along with the shrinkage in consumption, balance of short-term consumption loans also recorded a sharp decline. New short-term retail loans contracted by Rmb565bn in Jan-Feb (Jan: -Rmb115bn; Feb: -Rmb450bn). While the decline was in part due to seasonality season of Chinese New Year (CNY) holidays, the magnitude of contraction was much larger than the same period in prior years.

Figure 50: Jan-Feb retail sales plummeted



Source: PBOC

Figure 51: Feb short-term retail loan contracted sharply



Source: PBOC

In addition, several external data sources also point to very weak new retail loan business in Jan-Feb:

- Sharp decline in new credit card business: Caixin reported that Jan-Feb new credit card issuance were at historical low at some large banks, with one large bank seeing a 70% YoY decline and one joint stock bank recording 50% decline in new credit card issuance.
- Bank loan enquiry volume not yet recovered to pre-CNY holiday level: data from a third-party big data analytics company (100 credit) shows that loan enquiry volume three weeks after CNY was only at ~60% of pre-CNY level, while in 2019 loan enquiry volume fully recovered three weeks post CNY.
- Very weak auto loan enquiry volume post CNY: 100 credit data shows that auto loan enquiry volume three weeks after CNY was only ~10% of pre-CNY level, while in 2019 loan enquiry volume improved to 50-60% three weeks post CNY.

How bad could retail loan growth be hit by COVID-19?

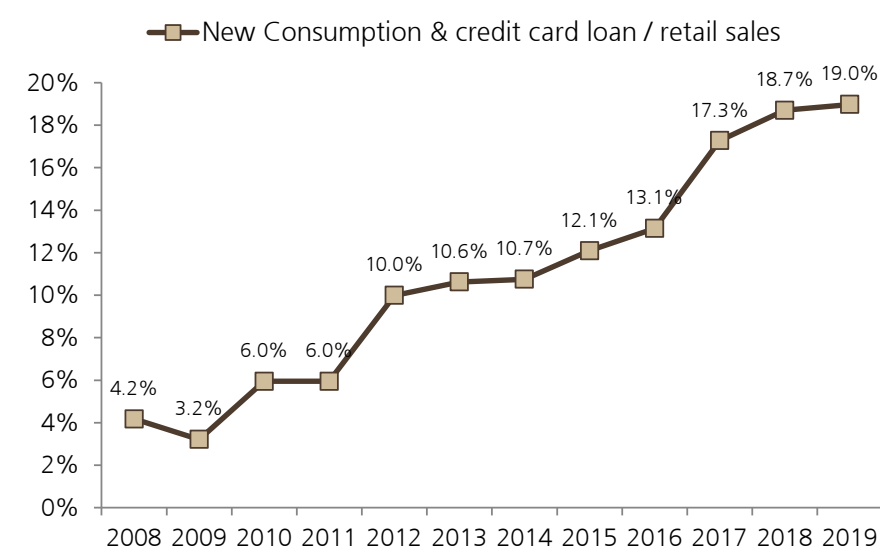
The weak retail loan demand and its negative impact on bank's NIM have become a key investor concern on China banks since the COVID-19 outbreak.

To estimate the consumption and credit card loan growth for 2020, we look at the correlation between retail sales and consumption loan growth. We find that with the rising penetration of consumer credit, retail sales fuelled by loans increased from 4% in 2008 to 19% in 2019. Assuming new consumption loan as share of retail sales unchanged at 19% in 2020, we estimate every 1% decline in retail sales could lead to 0.6% decline in consumption loan growth. In our base case, assuming 2020 retail sales posted muted growth (i.e. Q1 down by 20% YoY; Q2-Q4 unchanged as last year), we expect retail loan growth could slow to 7% YoY in

2020 from 16% in 2019, but followed by a recovery of 20% in 2021 on 7% retail sales growth.

For mortgages, we expect mortgages and secured loans using property as collateral to see stable growth, given relatively good asset quality. At FY19 analyst briefing, both CMB and Ping An Bank management expect mortgages and secured loans to keep steady growth in 2020.

Figure 52: Retail sales fuelled by loans increased from 4% in 2008 to 19% in 2019 by our estimates



Source: PBOC, NBS, UBS estimates

Figure 53: Sensitivity analysis on consumption loan growth

		Consumption & credit card loans / retail loans						Implied Mar-Dec 2020 retail sale growth
		16%	17%	18%	19%	20%	21%	
2020 retail sales	-8%	-6%	-3%	0%	2%	5%	8%	Mar retail sales -20% yoy; Apr-Dec lower than last year
	-5%	-5%	-2%	1%	4%	7%	10%	Mar retail sales -20% yoy; Apr-Dec same as last year
	-2%	-3%	0%	3%	6%	9%	12%	Mar to Dec 2020 increase by 1.6% yoy
	0%	-2%	1%	4%	7%	10%	13%	
	2%	-1%	2%	5%	8%	11%	14%	
	4%	0%	3%	6%	9%	12%	15%	
	6%	1%	4%	7%	10%	13%	17%	
	8%	2%	5%	8%	11%	15%	18%	

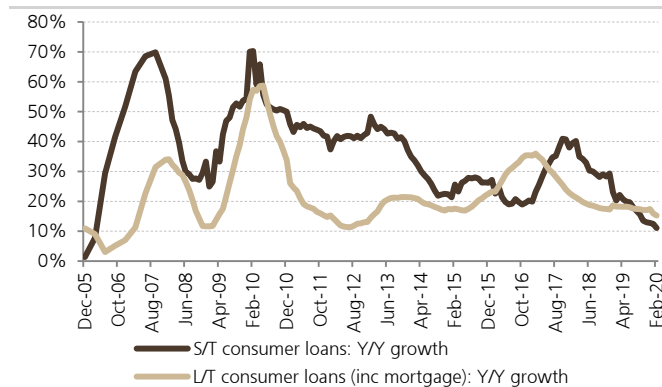
Source: UBS estimates

What happened to retail loan growth in previous cycles?

We also look at previous cycles (2008-09, and 2015-16) to see how much retail loan growth could be affected amid economic downturn. Figure 54 shows that the short-term consumption loan growth was still resilient with the trough level at 27% in Q109 and 20% in Q416. The strong growth was mainly helped by low household leverage at those times. At end of 2009, short-term consumption loan only accounted for 1.8% of China's GDP as bank card penetration is still low, and such ratio increased to 6.7% in 2016, still relatively low compared to other markets.

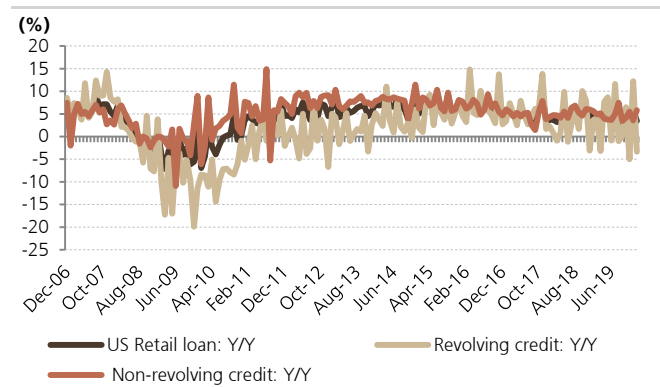
Historical trend in other developed markets may also be used for reference. In US, the global financial crisis resulted in as much as 20% decline in revolving credit in December 2009. Hong Kong and Taiwan also had credit card crisis in 2000s. Hong Kong credit card loan decreased by 10% in 2003 and Taiwan saw 27% decline in consumption and credit card loan in 2007.

Figure 54: China consumer loan growth



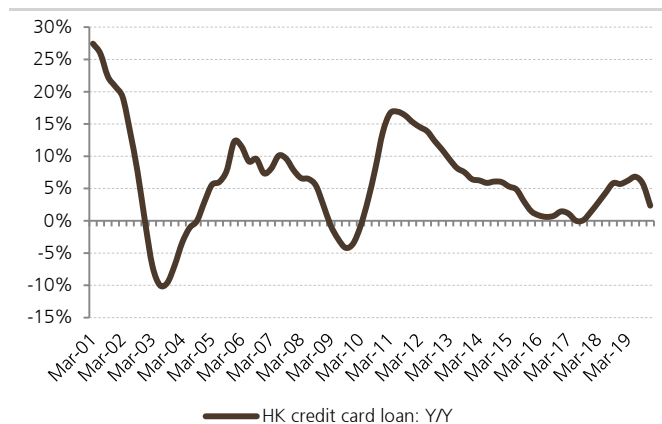
Source: WIND

Figure 55: US retail loan growth



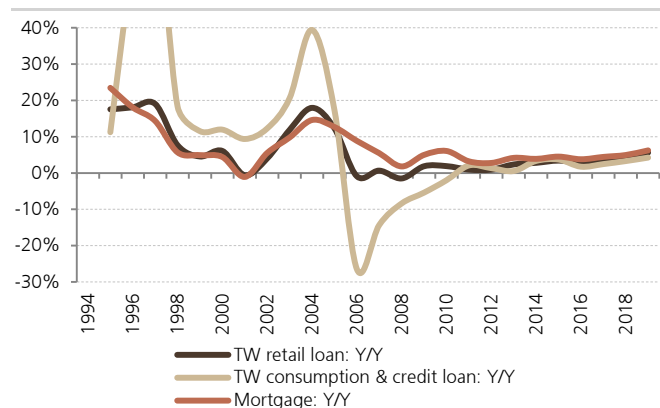
Source: WIND

Figure 56: HK retail loan growth



Source: WIND

Figure 57: TW retail loan growth



Source: WIND

Asset quality of retail banking to face a stress test

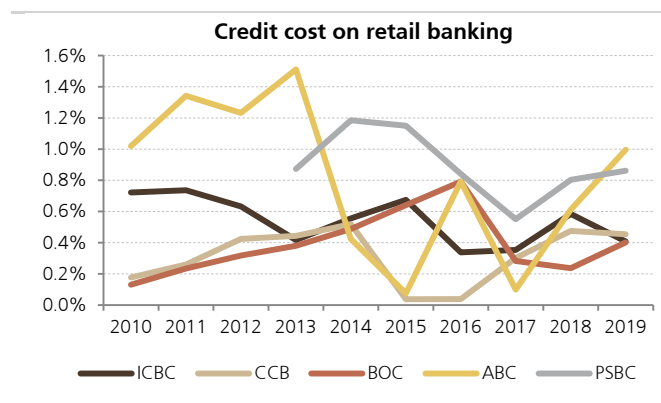
The weakened labour market and economic activities due to the COVID-19 outbreak could have a big impact on households' income cash flows, in particular among the lower income group. According to a recent data disclosure by CBIRC in a media conference, NPL ratio/ SML ratio of banking financial institutions by the end of February edged up by 5bp/ 17bp from previous month, with credit cards and home equity loans contributing to most of the rise. With global spread of COVID-19 a new uncertainty to domestic work resumption and external demand, we think asset quality of consumer loans could be under further pressure in the coming quarters.

Over the past few years, JSBs have been more aggressive in growing their credit card loans and other consumer credit. With a higher risk appetite than large banks, these banks have also seen a rapid rise in retail banking credit cost since 2018

(Figure 59). In addition, prior to the COVID-19 incident, the banking sector was already going through upticks in consumer loans, partly as a result of rising penetration of online cash loans and increased credit risk of multi-platform borrowers. If we use retail loan yield deducting credit cost as a rough estimate of risk-adjusted loan yield, banks with higher risk appetite on consumer loans (i.e. Ping An Bank, BOCOM) have seen a faster decline, thus narrowing their lead in risk-adjusted retail loan yields versus peers (Figure 64).

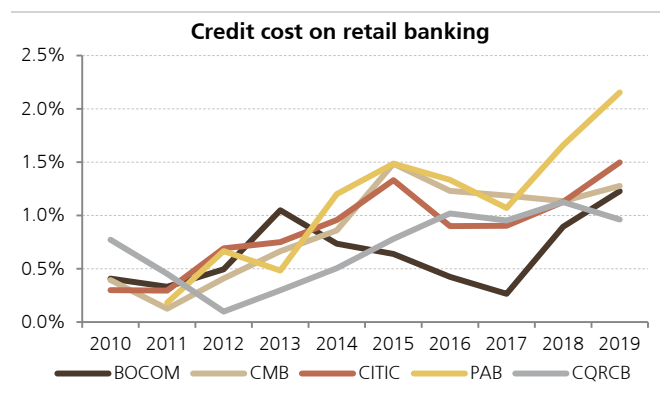
In terms of risk reserve, while most banks do not disclose their loan loss reserves for corporate banking and retail banking separately, we believe many banks do not maintain a large reserve for retail loan book, given credit costs for retail banking have been trending down prior to 2017 and only picked up in the past two years. Given a material rise in delinquency for consumer loans is likely for the coming quarters, we think many banks may have to further scale up the impairment charges for retail banking. Comparatively, the big 4 banks will likely to least impacted given mortgages accounted for around 80% of their retail loan books (Figure 63).

Figure 58: Most large banks have maintained low credit cost on retail banking...



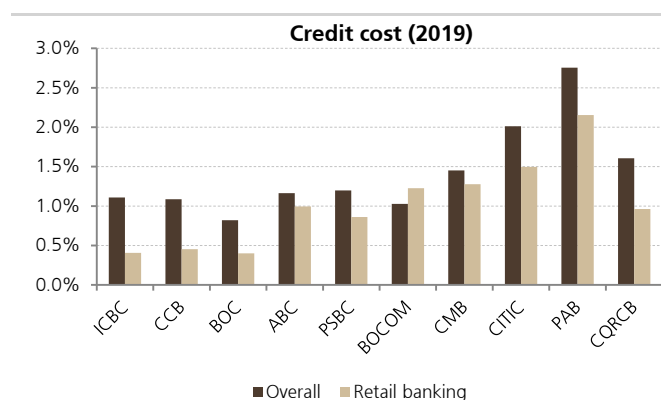
Source: Company data

Figure 59: ...in contrast to a material pickup among JSB since 2018



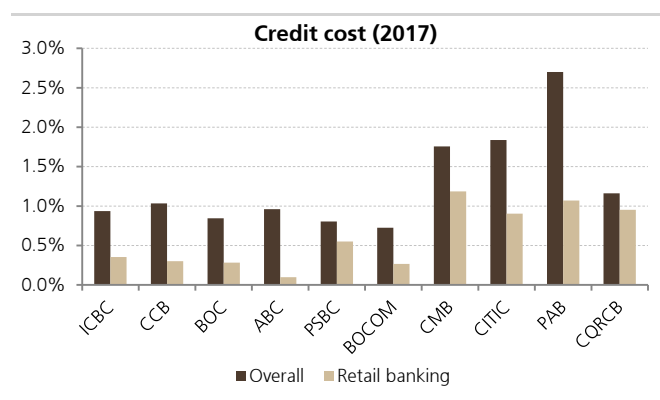
Source: Company data

Figure 60: Credit costs for retail banking have already caught up a lot among JSBs...



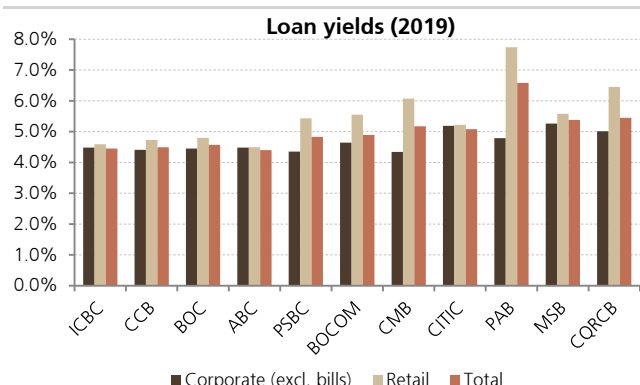
Source: Company data

Figure 61: ...compared to 2017



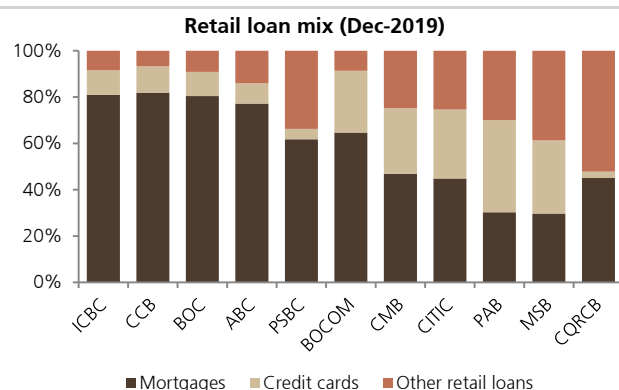
Source: Company data

Figure 62: Higher retail banking credit costs at JSBs were the result of higher risk appetite...



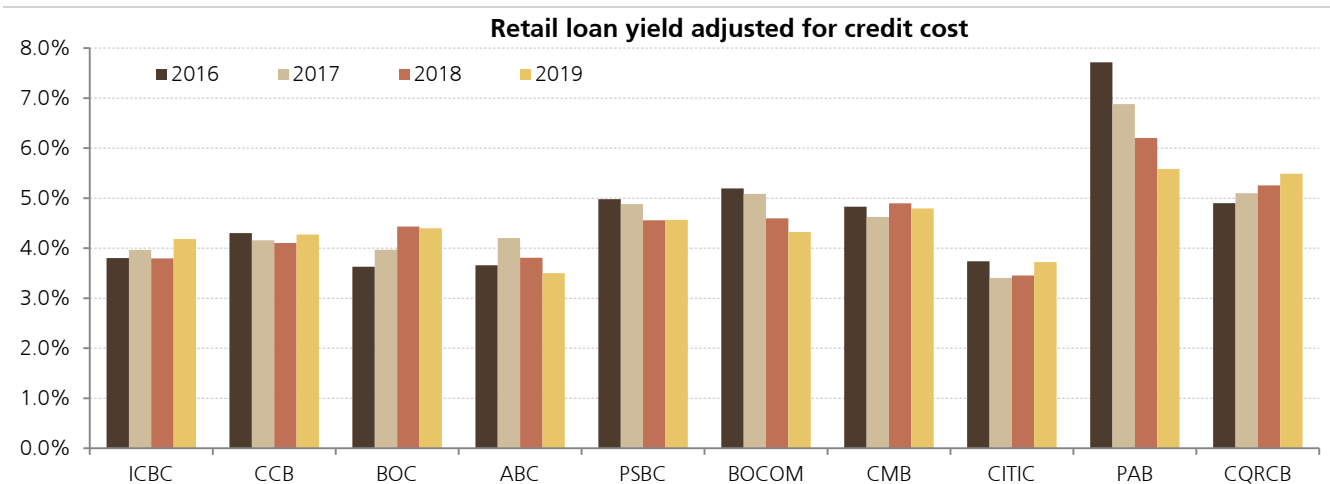
Source: Company data

Figure 63: ...towards higher-yield non-mortgage retail loans



Note: Other retail loans include consumer loans and personal business loans.
Source: Company data

Figure 64: Risk-adjusted return of retail loans trending down for some banks prior to COVID-19



Source: Company data, UBS

How much consumer loan NPLs will happen in 2020?

Out of our forecast of Rmb5.8trn of shock-driven NPLs resulting from economic shocks caused by COVID-19, we estimate around 12.7% (or Rmb740bn) would stem from non-mortgage consumer credit by assuming the same breakdown of new NPL formation in 2019. We further assume 50% of above shock-driven NPLs for consumer credit would materialise in 2020. Coupled with normalised NPL formation ratio of around 2.8%, we come up with an estimated gross NPL formation ratio of non-mortgage consumer credit at 5.8% in 2020, doubling the level from normal times. This will put the asset quality of banks with more aggressive growth of non-mortgage consumer credit at higher pressure in 2020, in our view.

Figure 65: We estimate NPL formation of non-mortgage consumer credit to double in 2020 on COVID-19 impacts

	Loan balance	Gross NPL formation ratio (FY20e)		
	End-2019 (Rmb trn)	Normalised NPL	Shock-driven NPL	Total
Consumer credit				
Mortgage	30	0.3%	0.0%	0.3%
Other consumer credit	12	2.8%	3.0%	5.8%
Total	43	1.0%	0.9%	1.9%

Source: CBIRC, UBS estimates

Medium-term positive outlook for retail banking intact

Despite near-term challenges on both loan growth and asset quality, we remain positive on the medium-term outlook of retail banking, after we move beyond the temporary impacts of COVID-19.

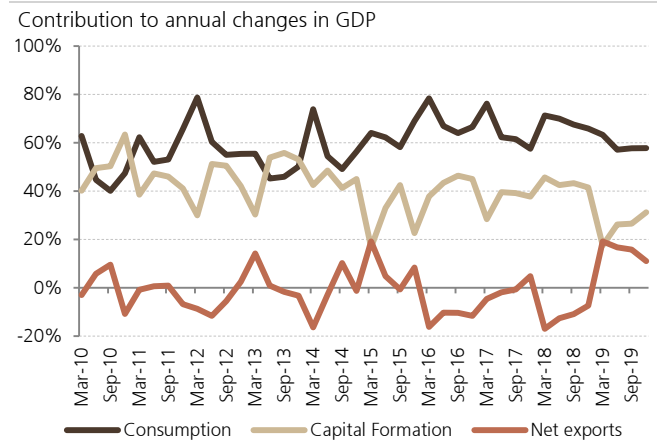
Overall, we believe China's path towards a more consumption-driven economy will continue. Domestic consumption contributed to 57.8% of incremental GDP in 2019, and has remained the largest driver for GDP growth in the past six years (Figure 66). Despite a rapid growth in China's consumer market in incremental size in the past decade, as a share of the economy and compared to other countries at their similar stage of development, Chinese consumption still has much room to grow (Figure 67).

In addition, we believe the general trend of consumption upgrade by Chinese households remains intact. While overall Chinese consumption growth has been resilient, discretionary spending by households has been growing at a faster pace than consumption of basic goods such as food and clothes, as household income gradually rose. We estimate that ~1/3 Chinese urban household consumption now goes towards services, up from a tenth two decades ago.

With the rapid development of e-Commerce in recent years, there is also a clear trend of shifting consumption channels from offline to online. By end-2019, online goods sales already accounted for 23% of overall retail goods sales in China. More importantly, online goods sales have remained relatively resilient even with the impacts of COVID-19, posing a 3% YoY growth in February 2020 when the overall retail goods sales fell.

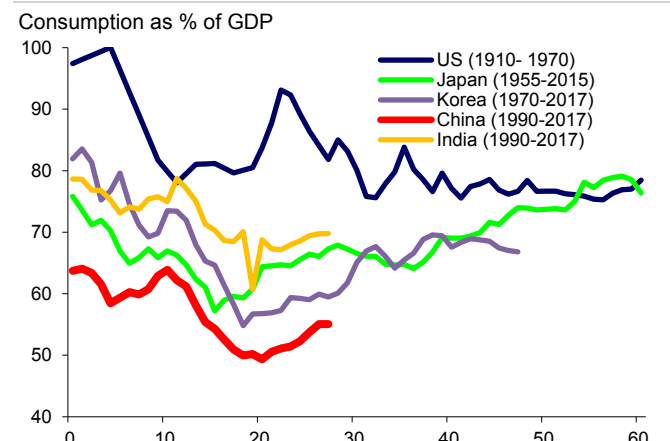
Along with secular growth of consumption by Chinese households, we expect consumer loans will also recover faster and stronger after the impacts of COVID-19 fade off. Our earlier UBS Evidence Lab [China Consumer Credit Survey](#) suggests that close to 60% of respondents (who were existing borrowers) indicated that they have borrowed for consumption purpose more frequently than the previous year. In addition, respondents showed improved awareness for the importance of maintaining good credit record, which we believe is a positive for the long-term development of consumer credit.

Figure 66: Consumption remains the largest driver for GDP growth in the past six years



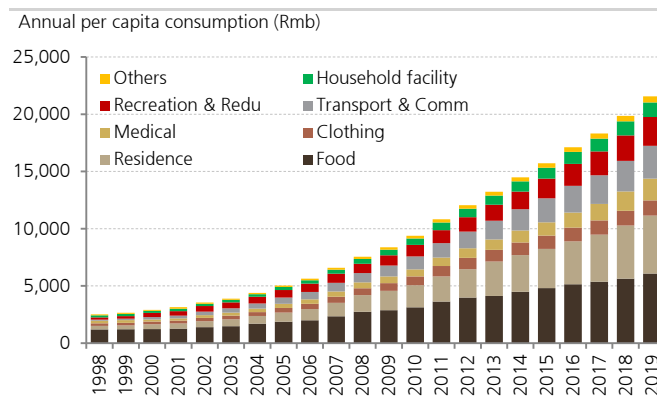
Source: CEIC

Figure 67: China's rebalancing towards consumption should continue



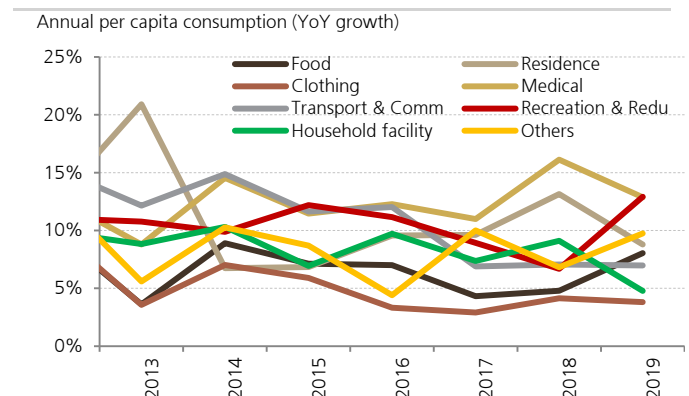
Source: CEIC, UBS estimates

Figure 68: Discretionary spending now accounts for a larger share of Chinese household consumption...



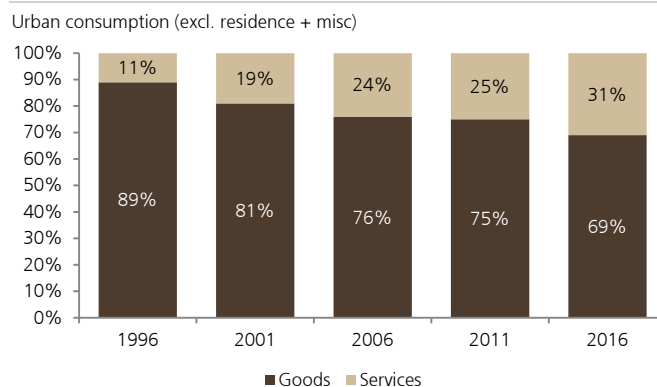
Source: CEIC

Figure 69: ...and has maintained stronger growth momentum



Source: CEIC

Figure 70: Services' share of household consumption has risen



Source: CEIC, UBS estimates

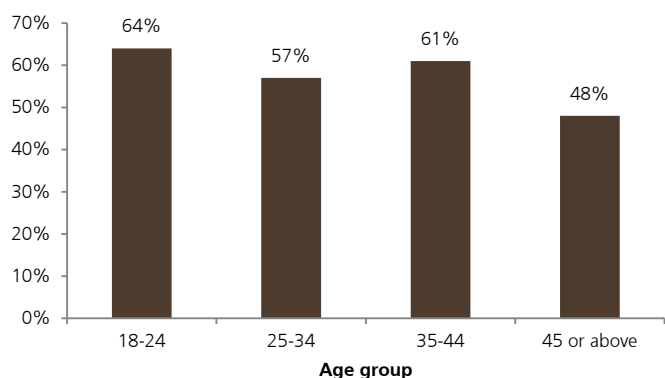
Figure 71: China's retail sales through e-commerce channels continues to grow rapidly



Source: CEIC

Figure 72: Borrowing for consumption purposes becoming more common for Chinese households

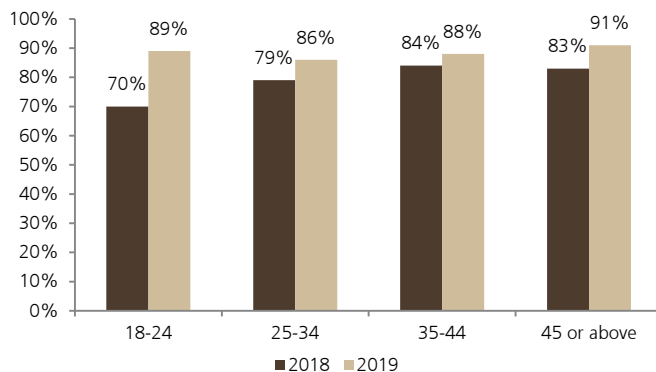
Compared to last year, I borrow for consumption purpose more frequently this year - Share of respondents who "Strongly agree" or "Slightly agree"



Note: Respondents from China Consumer Credit survey conducted in November 2019.
Source: UBS Evidence Lab

Figure 73: Past surveys show improved awareness for importance of good credit record

Share of respondents who agreed maintaining good credit record is important to them



Note: Respondents from China Consumer Credit survey conducted in November 2019 and November 2018.
Source: UBS Evidence Lab

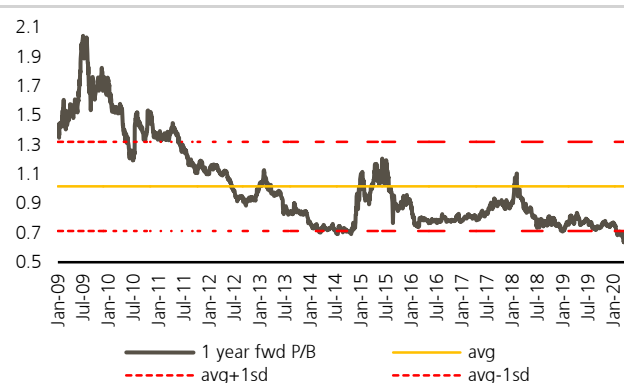
What's priced in?

Figure 74: H-share banks avg. 1-y fwd P/BV



Source: Datastream, UBS

Figure 75: A-share banks avg. 1-y fwd P/BV



Source: WIND, UBS

H & A-share banks are trading at 0.60x/0.66x one-year forward P/B respectively. Most banks are currently trading at record trough level against 12-16% ROE, except CMB. This is no surprise as we are in an unprecedented time of pandemic with a looming global recession. Investors are skeptical about the sustainability of bank's ROE, due to NIM compression and rising NPLs/credit costs. Our reverse engineering suggests that current sector valuation implies NPL ratio at around 4.0%-12.5% (except CQRCB's 29%) amid Chinese banks, which is actually in line with our estimate of banking sectors' aggregate NPL formation at 12.4% in 2020-2025E. We believe these NPLs will be recognized and dealt with on a multi-year horizon.

Are China banks' valuation fair then?

Major Chinese banks' share price have corrected by c.11-23% since the COVID-19 outbreak in China. We believe banks' current valuations have largely factored in the current market view of slower China GDP growth at 2-4% in 2020 and the resulted bank asset quality deterioration. However, given the widespread of COVID-19 worldwide, there could be more downside risk for bank stocks from trade-related and global supply chain disruptions as a result of bad global recession. However, the unprecedented massive stimulus packages announced by governments at many countries could also lead to some upside in bank stocks. In addition, any earlier-than-expected containment of the corona virus could also lead to share price upside.

Figure 76: Summary of banks' share price performance

Ticker		Rating		Price target		Price (LC)	Implied upside	Dividend yield	Stock performance (total return)				
		(New)	(Old)	(New)	(Old)				1-week	1-month	3-month	YTD	52-week
UBS H-share coverage													
PSBC	1658.HK	Buy	Buy	5.90	6.50	4.71	25%	5.0%	-0.2%	-4.7%	-9.4%	-11.1%	7.0%
CCB	0939.HK	Buy	Buy	7.60	8.30	6.30	21%	5.6%	-0.6%	-0.8%	-4.0%	-6.4%	-5.2%
ICBC	1398.HK	Buy	Buy	6.30	6.80	5.27	20%	5.5%	-0.8%	-1.7%	-9.8%	-12.2%	-7.1%
ABC	1288.HK	Neutral	Neutral	3.30	3.20	3.12	6%	6.5%	0.3%	-1.9%	-6.9%	-9.0%	-11.5%
CQRCB	3618.HK	Neutral	Neutral	3.20	4.20	3.14	2%	8.1%	-1.3%	-11.3%	-20.7%	-21.1%	-30.7%
BOC	3988.HK	Neutral	🔴 Buy	3.10	4.60	3.01	3%	7.1%	1.3%	-2.6%	-6.5%	-9.6%	-15.2%
CMB	3968.HK	Neutral	Neutral	35.10	42.60	35.00	0%	3.8%	0.0%	-7.3%	-12.3%	-12.6%	-12.8%
MSB	1988.HK	Neutral	Sell	5.60	n.a.	5.70	-2%	7.2%	-1.0%	3.1%	-1.9%	-3.2%	0.2%
Huishang	3698.HK	Sell	Sell	2.70	2.90	2.90	-7%	6.0%	4.7%	0.3%	-2.0%	1.4%	-13.4%
BOCOM	3328.HK	Sell	🔴 Neutral	4.20	5.80	4.85	-13%	7.2%	2.1%	-3.8%	-10.2%	-12.5%	-22.7%
CITIC	0998.HK	Sell	🔴 Neutral	3.30	4.70	3.82	-14%	7.0%	-0.3%	-6.6%	-15.1%	-18.2%	-21.1%
Average								6.3%	0.4%	-3.4%	-9.0%	-10.4%	-12.0%
UBS A-share coverage													
CCB-A	601939.SH	Buy	Buy	8.22	8.80	6.42	28%	5.0%	1.3%	-3.2%	-10.1%	-11.2%	-9.2%
ICBC-A	601398.SH	Buy	Buy	6.52	6.80	5.16	26%	5.1%	0.2%	-4.6%	-12.7%	-12.2%	-7.4%
CMB-A	600036.SH	Buy	Buy	37.00	45.70	32.52	14%	3.7%	0.7%	-8.2%	-15.3%	-13.5%	-7.1%
MSB	600016.SH	Neutral	Neutral	6.11	n.a.	5.78	6%	6.4%	1.2%	-2.0%	-8.1%	-8.4%	-7.7%
PAB	000001.SZ	Neutral	🔴 Buy	13.24	18.62	12.88	3%	1.9%	0.6%	-14.3%	-22.7%	-21.7%	-6.8%
ABC-A	601288.SH	Neutral	Neutral	3.60	3.90	3.42	5%	5.3%	1.5%	-2.3%	-7.3%	-7.3%	-5.6%
BOC-A	601988.SH	Neutral	🔴 Buy	3.47	4.70	3.51	-1%	5.4%	0.9%	-3.3%	-4.9%	-4.9%	-5.6%
CITIC-A	601998.SH	Sell	🔴 Neutral	4.57	6.00	5.18	-12%	4.6%	0.0%	-6.8%	-15.1%	-16.0%	-17.9%
Average								4.6%	0.9%	-6.0%	-12.6%	-12.6%	-9.0%

Source: Reuters, UBS estimates

- **Base case:** We assume 1.5%/7.5% GDP growth (4.5% CAGR) in 2020/2021, and 33%/24% of shock-related NPL formation will be formed in 2020/2021E. In such case, quarterly GDP will see -5.0% YoY/+1.5% YoY in 1Q20-2Q20. This would translate to 3.0%/2.8% NPL formation in 2020/2021 across banking sector. In this scenario sector earnings would see 5% YoY decline in average with SML ratio up to 5.6% in 2020E versus 2.9% in 2019 and NPL ratio up to 2.81% from 1.86% in 2019. Coverage ratio would decline to c.126%/122% accordingly in the upcoming two years. NIM wise, given the inevitable asset yield pressure from LPR and etc could not be fully offset by funding support from RRR and potential deposit benchmark rate cut, we estimate banks NIM would see mid-to-high single basis point YoY decline.

For individual banks, we believe the above scenario might be distorted as it might ignore individual banks' varying risk management quality and risk appetite. Besides, some banks are much more prudent on NPL disposal and compliant loan classification. Although we do not know the specific minimum requirement for each bank, we believe large SOE banks could generally enjoy close to a 120% minimum requirement. part from adopting the same NPL formation ratio to assess the potential earnings impact on individual banks, we made adjustment based on the perception that large SOE banks and high-quality JSBs have stronger risk control capabilities. We therefore lower our assumed NPL formation ratio: 1) 50-100bp for the big six SOE banks and CMB versus the sector NPL formation ratio; and 2) 0-50bp for JSBs and other smaller banks.

Figure 77: Upside/downside scenario analysis table of our covered H & A share banks

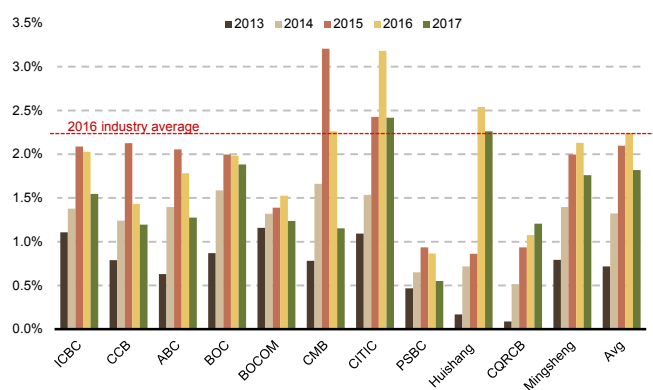
	H-share											A-share							
Company	ICBC	CCB	ABC	BOC	BOCOM	PSBC	CMB	CITIC	MSB	CQRCB	Huashang	ICBC	CCB	ABC	BOC	CMB	CITIC	MSB	PAB
Base case price target	6.30	7.60	3.30	3.10	4.20	5.90	35.10	3.30	5.60	3.20	2.70	6.52	8.22	3.60	3.47	37.00	4.57	6.11	13.24
Current price	5.20	6.22	3.06	2.97	4.70	4.67	34.40	3.76	5.65	3.05	2.95	5.14	6.40	3.40	3.49	32.15	5.13	5.71	12.61
Upside valuation	7.60	9.20	4.00	4.00	5.00	7.20	43.90	4.20	6.30	3.70	3.40	7.87	9.95	4.37	4.47	45.70	5.82	7.02	20.90
- Diff to current price	46%	48%	31%	35%	6%	54%	28%	12%	12%	21%	15%	53%	55%	28%	28%	42%	13%	23%	66%
Downside valuation	4.40	5.20	2.50	2.50	3.50	4.10	24.10	3.00	4.10	2.70	1.80	4.56	5.62	2.73	2.79	28.00	4.16	4.53	6.80
- Diff to current price	-15%	-16%	-18%	-16%	-26%	-12%	-30%	-20%	-27%	-11%	-39%	-11%	-12%	-20%	-20%	-13%	-19%	-21%	-46%
Upside case																			
2020E NIM	2.48%	2.49%	2.41%	2.07%	1.75%	2.76%	2.85%	2.26%	2.08%	2.49%	2.64%	2.48%	2.49%	2.41%	2.07%	2.85%	2.26%	2.08%	2.76%
2020E Credit cost	0.84%	0.87%	0.82%	0.58%	0.93%	0.66%	1.03%	1.69%	1.80%	1.19%	1.18%	0.84%	0.87%	0.82%	0.58%	1.03%	1.69%	1.80%	2.70%
Base case																			
2020E NIM	2.18%	2.19%	2.11%	1.77%	1.55%	2.46%	2.55%	2.06%	1.88%	2.29%	2.44%	2.18%	2.19%	2.11%	1.77%	2.55%	2.06%	1.88%	2.56%
2020E Credit cost	1.14%	1.17%	1.12%	0.88%	1.13%	0.96%	1.33%	1.89%	2.00%	1.39%	1.38%	1.14%	1.17%	1.12%	0.88%	1.33%	1.89%	2.00%	2.50%
Downside case																			
2020E NIM	1.98%	1.99%	1.91%	1.57%	1.25%	2.26%	2.35%	1.76%	1.58%	1.99%	2.14%	1.98%	1.99%	1.91%	1.57%	2.35%	1.76%	1.58%	2.36%
2020E Credit cost	1.34%	1.37%	1.32%	1.08%	1.43%	1.16%	1.53%	2.19%	2.30%	1.69%	1.68%	1.34%	1.37%	1.32%	1.08%	1.53%	2.19%	2.30%	2.70%

Source: Company data, UBS estimates

- **Downside case:** If GDP growth in 1Q20 has fallen more than our economist's estimates, and 2Q20 recovery would be weaker due to slower resumption or sharper global recession, GDP growth would face further down side risk. As such, NPL formation would surge caused by slowing economic activities and weaker demand. Under such case, we expect further stimulate policies to be released (ie easing monetary policies, banks to incrementally lower loan pricing to support the economy); and thus banks will suffer from rising pressures on NIM. In addition, if China's macro debt leverage climbs up again significantly, we think investors would assign a higher risk premium to the banking sector.

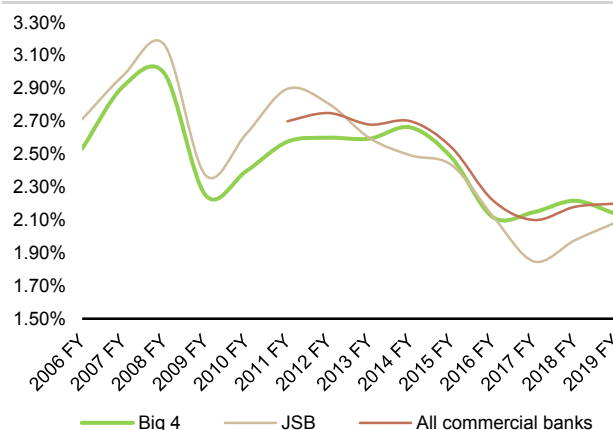
For individual banks, we assume around 20bp higher credit cost than in our based case for large SOE banks and CMB given their better risk control capability, while 30bp for other JSBs and smaller banks, which is equivalent to around 2.5-3.0% gross NPL formation for large banks and 3-3.5% for smaller banks. Such NPL formation assumption has already surpassed the peak level of banks' NPL formation during 2015-16, and we believe this assumption justified for the COVID-19. For NIM, for we assume 15-20bp lower NIM versus base case for large SOE/CMB, but 25-30bp lower for other banks. We believe the worsening economic condition might urge PBOC to further lower MLF and hence the LPR. Amid the severe LPR downward trend, smaller banks will face further NIM pressure given their weaker price bargaining power with corporate clients.

Figure 78: Banks' gross NPL formation rate – we saw peak at c.2-2.5% in 2015-16



Source: Company data, UBS estimates

Figure 79: Our covered banks' NIM saw trough during 2016-2017



Source: CBIRC, company data

- **Upside scenario:** If coronavirus pandemic is under better control and economic activities resumption accelerates starting from 2Q20 underpinned by strong fiscal stimulus or rapid rebound in property activities, likely aided by supportive policies. Under such case, policy support could be released in a slower pace, and asset quality could recover in a faster pace.

For individual banks, we assume around +30bp lower credit cost than in our based case for large SOE banks and CMB, and -20bp lower for other JSBs and smaller banks. For NIM, for we assume 20-30bp higher NIM versus base case for large SOE/CMB, but 15-20bp higher for other banks.

UBS Research THESIS MAP a guide to our thinking and what's where in this report

PIVOTAL QUESTIONS

Q: Is BOC's NIM having more pressure?

Yes. Besides material headwinds to the sector NIM outlook in 2020, we expect BOC to face more pressure on NIM than peers, as BOC has the highest overseas exposure with overseas assets accounting for 21% of total assets (mostly BOCHK). With the US Fed Fund rate cut 100bp to 0-25bp in mid-March and our UBS economist forecasts Hong Kong GDP to contract by 5.4% in 2020 – the worst in recent record, margin pressure is much higher in the overseas market.

Q: Is BOC's credit cost at risk amid COVID-19 impacts?

In line with our China banking sector view, we expect BOC to go through a tougher NPL cycle in the coming years as a result of COVID-19 outbreak. Though BOC has less exposure to the manufacturing/wholesale and retail sector as well as private sector domestically, its overseas business may face more NPL challenges given the negative outlook for global recession. We expect BOC to have slightly higher credit cost at 88bp in 2020 (vs 80bp in 2019), but still target flat profit growth.

UBS VIEW

We downgrade BOC H & A shares from Buy to Neutral and cut net profit estimates by 4-6% for 2020-2021. We expect muted profit growth in 2020, due to 1) NIM pressure as lower lending rate more than offsets a decline in funding cost. In addition, we expect BOC to face more NIM headwinds than large bank peers given its weak deposit franchise and 20% overseas exposure, which has a much lower rate environment; and 2) higher credit cost in 2020 due to rising NPLs as a result of dramatic economic slowdown in China and globally.

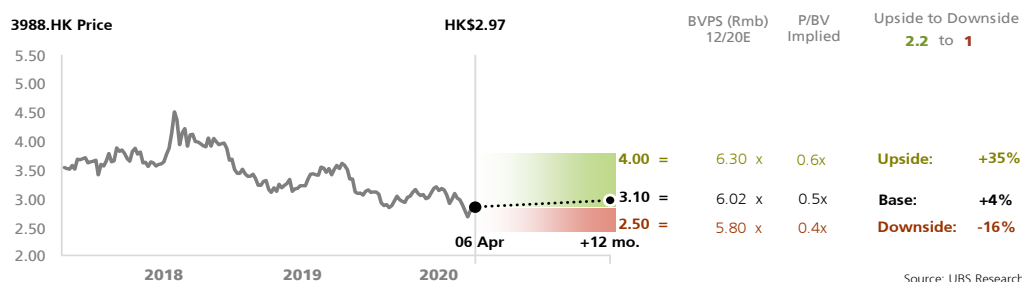
EVIDENCE

BOC assets are 20% overseas assets (mostly BOCHK), and UBS economist forecasts Hong Kong GDP to contract 5.4% in 2020 – the worst in recent record. BOC's deposit franchise is weaker than large bank peers as deposit as share of liability is 77% of total liability, vs 83% at other big four banks.

WHAT'S PRICED IN?

BOC-H is currently trading at 0.4x one-year forward P/BV, a historical low and a 30%/30% discount to ICBC-H/CCB-H. The valuation is undemanding, but we see limited near-term catalysts and therefore downgrade the stock from Buy to Neutral.

UPSIDE / DOWNSIDE SPECTRUM



UBS Research THESIS MAP a guide to our thinking and what's where in this report

PIVOTAL QUESTIONS

Q: Are PAB's earnings at risk amid COVID-19 impacts?

Yes, we expect PAB to report lower profit growth in 2020 than its previously announced 15% target as key growth driver consumer loans is under significant pressure in terms of both growth pace and NPL risks. We cut PAB's 2020E profit growth to 5% (vs 14% in 2019) on 1) lower NIM (2.56% vs 2.62% in 2019) as loan mix shift to more lower-yielding corporate loans, and 2) elevated credit cost of 2.5% (same as in 2019). We downgrade PAB to Neutral from Buy.

[more→](#)

Q: What's the NIM outlook for PAB?

Besides material headwinds to the sector NIM outlook in 2020, we expect PAB may face more pressure on NIM than peers, given its higher exposure to retail loans (58% of gross loan) and retail loan mix highly skewed towards consumption and credit card loans (at 70%). Loan mix shift to corporate loans in 2020 would weigh on its NIM given retail loan yield at 7.74% in 2019 was much higher than 4.8% for corporate loans.

[more→](#)

Q: Is the outlook for retail banking more negative than corporate banking?

Yes, at least in the next few months. We expect consumer loan growth for the banking industry to slow to 7% YoY in 2020 from 16% in 2019, given rising unemployment pressure, weakened income growth outlook, and disruption to consumption activities. With a higher exposure to non-mortgage consumer credit, we think PAB's asset quality could be under greater pressure.

[more→](#)

UBS VIEW

We downgrade Ping An Bank from Buy to Neutral given weak retail loan demand and asset quality deterioration due to COVID-19 outbreak. We expect COVID-19 to have a one-off negative impact on 2020E profit (+5%, vs 14% in 2019) due to lower NIM (2.56% vs 2.62% in 2019) on loan-mix shift to corporate loans and elevated credit cost (2.5%, same as 2019). However, we remain positive on retail banking in the medium term, and forecast the bank's profit growth to rebound to 12% in 2021, assuming retail loan growth returns to normal.

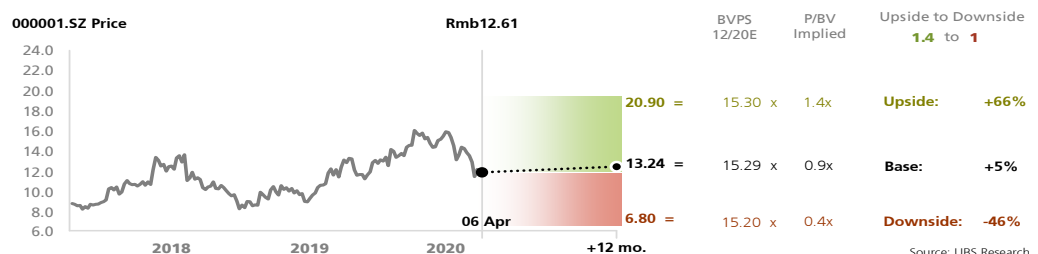
EVIDENCE

PAB may be more affected by weak retail loan demand given its higher exposure to retail loans (58% of gross loan) and retail loan mix highly skewed towards consumption and credit card loans (at 70%). Retail loan yield at 7.74% in 2019 was much higher than 4.8% for corporate loans. Some banks have noted increasing delinquency rates lately, and we think more NPLs could show up later.

WHAT'S PRICED IN?

The share price has corrected 23% YTD, and the stock is now trading at 0.8x 2021E P/BV, largely in line with 5-year average and its JSB peers. We believe it is difficult for PAB to deliver significantly better profit growth and ROE improvement in this challenging environment and thus downgrade to Neutral.

UPSIDE / DOWNSIDE SPECTRUM



Value drivers (2020E)	NIM	Credit cost	COE
Rmb20.90 upside	2.76%	2.3%	13.1%
Rmb13.24 base	2.56%	2.5%	13.1%
Rmb6.80 downside	2.36%	2.7%	13.1%

Source: UBS estimates

China Minsheng Banking

Wait for the dust to settle

Resume coverage with Neutral rating

We resume coverage of Minsheng Banking with Neutral rating after a period of restriction. Minsheng Banking reported accelerating earnings growth of 7% YoY in 2019 from 1% in 2018, due to YoY NIM expansion, faster asset growth and better cost control. In 2020, Minsheng Banking will start the eighth change of session of its board, and so far there is little visibility on the bank's new strategy. We expect its 2020 earnings growth to decline 5%, weaker than peers, due to NIM contraction and elevated credit cost given potential asset quality deterioration on higher exposure to MSEs and the private sector. Minsheng Banking-H is trading at 0.4x one-year forward P/BV, a historical low and a large discount to peers. While the valuation is undemanding, we suggest investors wait until the uncertainty on new shareholder and management is removed.

Wait for eighth change of session of the board and more clarity on strategy

A board and management reshuffle has been postponed due to COVID-19 outbreak. So far there is little visibility on how the largest shareholder Dajia Insurance will play a role in the board, or how the new strategy will play out, which will take some years to materialise. We suggest investors wait for more clarity.

Business focus on MSE and private sector may not improve its ROE near term

We expect the bank's net profit to decline -5% in 2020, followed by 6% profit growth in 2021-2024, and expect ROE to decline from 12% in 2019 to 10% in 2020 and further decline to 9% in 2024, as 1) decline in loan yield, especially for MSE loans, and limited deposit contribution from MSEs could weigh on the bank's NIM; and 2) credit cost may remain elevated in 2020, given low NPL coverage (156% at end of 2019) and more asset quality pressure from MSE loans (13% of gross loans).

Valuation: PT set at HK\$5.60 with a Neutral rating

Our new PT of HK\$5.60 implies 0.5x 2020E P/BV. Key upside risk includes better-than-expected asset quality and resilient NIM. Key downside risks include uncertainties due to new senior management onboarding, and slower-than-expected economic recovery.

Equities

China
Banks, Ex-S&L

12-month rating **Neutral**
Prior: Sell

12m price target **HK\$5.60**
Prior: HK\$5.30

Price (06 Apr 2020) **HK\$5.65**

RIC: 1988.HK **BBG:** 1988 HK

Trading data and key metrics

52-wk range	HK\$6.12-5.03
Market cap.	HK\$245bn/US\$31.6bn
Shares o/s	43,782m (ORD)
Free float	88%
Avg. daily volume ('000)	33,698
Avg. daily value (m)	HK\$186.6
Common s/h equity (12/20E)	Rmb552bn
P/BV (12/20E)	0.4x
Tier 1 ratio	11%

EPS (UBS, diluted) (Rmb)

	From	To	% ch	Cons.
12/20E	-	1.17	-	1.25
12/21E	-	1.24	-	1.33
12/22E	-	1.31	-	0.95

Highlights (Rmb m)	12/17	12/18	12/19	12/20E	12/21E	12/22E	12/23E	12/24E
Revenues	141,947	154,161	177,745	191,894	207,960	223,836	243,004	264,744
Profit before tax	60,562	58,785	64,738	61,013	64,782	68,493	72,865	77,588
Net earnings (local GAAP)	49,813	50,327	53,819	51,061	54,265	57,419	61,135	65,150
Net earnings (UBS)	49,813	50,327	53,819	51,061	54,265	57,419	61,135	65,150
Tier 1 ratio %	8.9	9.2	10.3	10.5	10.6	10.5	10.6	10.5
EPS (UBS, diluted) (Rmb)	1.14	1.15	1.23	1.17	1.24	1.31	1.40	1.49
Profitability/valuation	12/17	12/18	12/19	12/20E	12/21E	12/22E	12/23E	12/24E
ROE (UBS) %	14.2	12.9	12.5	10.2	9.5	9.4	9.3	9.3
P/POP (diluted)	2.7	2.1	1.7	1.6	1.5	1.4	1.3	1.2
P/BV x	0.7	0.5	0.5	0.4	0.4	0.4	0.3	0.3
P/BV (UBS) x	0.7	0.5	0.5	0.4	0.4	0.4	0.3	0.3
P/E (UBS, diluted)	5.1	4.4	4.0	4.4	4.1	3.9	3.7	3.4
Net dividend yield %	3.0	6.7	7.5	6.8	7.3	7.7	8.2	8.7

Source: Company accounts, Thomson Reuters, UBS estimates. Metrics marked as (UBS) have had analyst adjustments applied. Valuations: based on an average share price that year, (E): based on a share price of HK\$5.65 on 06 Apr 2020 22:25 HKT

UBS Research THESIS MAP a guide to our thinking and what's where in this report

PIVOTAL QUESTIONS

Q: Is uncertainty on new shareholder and management removed?

No. The board and management reshuffle has been postponed due to the COVID-19 outbreak. So far there is little visibility on how the largest shareholder Dajia Insurance will play a role in the board, or how the new strategy will play out, which will take some years to materialise. We suggest investors wait for more clarity.

[more→](#)**Q: Can Minsheng Banking's strategy on MSE and private company improve its ROE/ROA?**

Not in the near term. We think the bank may not improve its ROE/ROA in the near to medium term, as 1) decline in loan yield, especially for MSE loans, and limited deposit contribution from MSEs could weigh on the bank's NIM, and 2) the bank's higher exposure to MSEs and private companies may put more pressure on the bank's asset quality, which could keep its credit cost elevated in 2020. As such, we forecast the bank's net profit to decline -5% in 2020, followed by 6% profit growth in 2021-2024, and expect ROE to decline from 12% in 2019 to 9% in 2024.

[more→](#)**Q: Is the outlook for retail banking more negative than corporate banking?**

Yes, at least in the next few months. We expect consumer loan growth for the banking industry to slow to 7% YoY in 2020 from 16% in 2019, given rising unemployment pressure, weakened income growth outlook, and disruption to consumption activities. Asset quality of JSBs with higher exposure to non-mortgage consumer credit will likely be under greater pressure.

[more→](#)

UBS VIEW

We have a Neutral rating on Minsheng Banking. In 2020, company will start the eighth change of session of board, and so far there is little visibility on the bank's new strategy. We expect its 2020 earnings growth to remain lower than peers due to NIM contraction and elevated credit cost. Minsheng Banking-H is trading at 0.4x one-year forward P/BV, a discount to peers. We believe the undemanding valuation has largely priced in investors' concerns over weak earnings growth. But we suggest investors wait until uncertainty on new shareholder and management is removed.

EVIDENCE

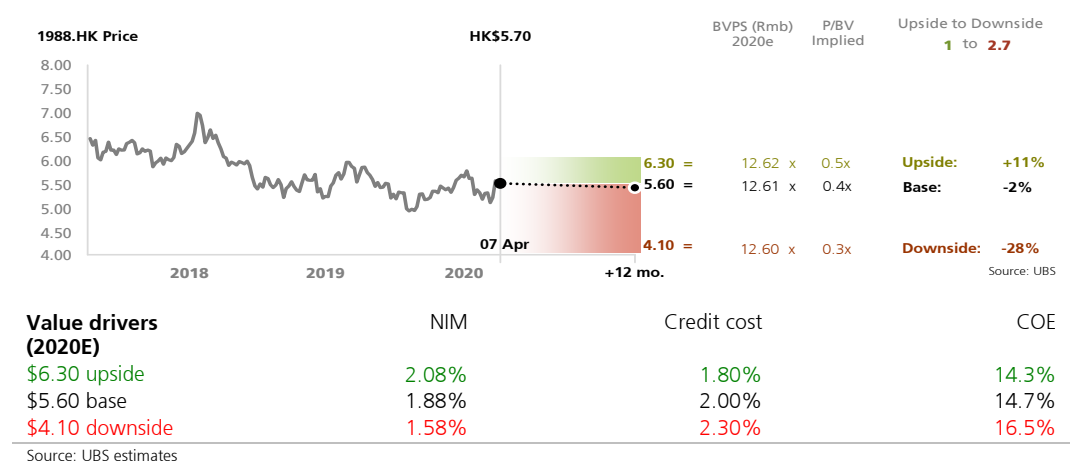
MSB's NPL coverage ratio was 156% at end of 2019, well below peers, and it has a larger exposure to MSE (13% of gross loans) and private sector than peers, which are more vulnerable to economic downturn. In addition, the government calls for lowering lending rate to support real economy. This, along with a higher portion of secured MSE loans (90%), could weigh on bank's NIM.

WHAT'S PRICED IN?

Minsheng Banking-H is trading at 0.4x one-year forward P/BV, a discount to peers. We believe the undemanding valuation has largely priced in investors' concerns over weak earnings growth. But we suggest investors wait until uncertainty on new shareholder and management is removed.

[more→](#)

UPSIDE / DOWNSIDE SPECTRUM

[more→](#)

PIVOTAL QUESTIONS

[return](#) ↑**Q: Is uncertainty on new shareholder and management removed?****UBS VIEW**

No. The board and management reshuffle has been postponed due to the COVID-19 outbreak. So far there is little visibility on how the largest shareholder Dajia Insurance will play a role in the board, or how the new strategy will play out, which will take some years to materialise. We suggest investors wait for more clarity.

EVIDENCE

The change of the eighth session of the board of directors has been delayed due to COVID-19, according to a company announcement. Dajia Insurance currently holds 17.7% stake in Minsheng. It is not clear how it plans to deal with the stake.

WHAT'S PRICED IN?

MSB-H is currently trading at 0.4x one-year forward P/BV, a significant discount to peers. This partly reflects investors' concern on the uncertainty over the bank's future strategy.

The change of session of board of directors is postponed due to COVID-19 outbreak

The bank has been through several changes in its management team, major shareholders and strategic focuses. The change of session of board of directors was officially launched in Dec-18. The bank's Nomination Committee will propose the list of candidates for directors, or shareholders with over 3% voting rights could also nominate a candidate for director. However, due to COVID-19 outbreak, the progress is slower than expected and the change of session will be postponed.

Will there be any changes to the management?

The 8th session of board will comprise 18 directors with at least 6 independent non-executive directors, and at least two directors being senior management of the bank. Key question here is will there be any changes to the management.

No restriction on the term of office: The bank made changes on the term of office for Chairman of Director and Vice Chairman of Director in its Articles of Associations in Feb 2017. Previously, the Chairman of Director and Vice Chairman of Director can serve two three-year terms. If the Board of Directors feel necessary, they could serve a third consecutive term. In Feb 2017, the bank removed the restriction on the term of office.

Figure 80: Summary of Chairman and President turnover at Minsheng Banking

	Chairman of Board	President
2000-2006	Jing, Shuping	Dong, Wenbiao
2006-2009	Dong, Wenbiao	Wang, Tongshi
2009-2014	Dong, Wenbiao	Hong, Qi
2014-2019	Hong, Qi	Mao, Xiaofeng (being investigated); Zheng, Wanchun
2020-	TBD	TBD

Source: Company data

Shareholding structure of Minsheng Banking

Right now Dajia Life Insurance is the largest shareholder of Minsheng Banking and holds 17.7% stake. Dajia Insurance will likely appoint one or two directors in the board of Minsheng Banking this time. Other shareholders with over 3% voting rights could also nominate a candidate for director.

Figure 81: Minsheng Banking shareholding structure

Dajia Life Insurance	17.7%
China Oceanwide	4.6%
Tongfang Guoxin	4.3%
New Hope	4.2%
Shanghai Giant Lifetech	3.2%
Huaxia Life Insurance	3.1%
China Shipowners Mutual Assurance Association	3.0%
Orient Group	2.9%

Source: Company data

Overview of the largest shareholder - Dajia Insurance

Dajia Insurance was established in July 2019 and held Rmb700bn good assets (including Anbang life insurance, Anbang Pension, Anbang asset management and Anbang Auto insurance) transferred from Anbang insurance which was taken over by CBIRC in Feb 2018.

Figure 82: timeline of Anbang being taken over and the establishment of Dajia

Feb-18	Anbang insurance was taken over by CBIRC for one year
Apr-18	Insurance Protection Fund injected Rmb61bn to Anbang insurance Three new shareholders were Insurance Protection Fund (98.2%), Sinopec (0.6%), and SAIC (1.2%)
Feb-19	The takeover was extended for one year
Mar-19	Restructuring plan was approved
Jul-19	Dajia Insurance was established to hold Rmb700bn assets from Anbang Shareholding structure remained the same
Feb-20	CBIRC completed the takeover
Next 3-6 month	Strategic investors will be introduced, and expected new shareholding structure for Dajia will be - Insurance Protection Fund (33%), foreign capital (22%), state-owned capital (22%), private capital (22%)

Source: UBS

I. The spin-off and restructure of Anbang insurance

After Anbang insurance was taken over by CBIRC on Feb 23, 2018, insurance protection fund injected Rmb61bn fund into Anbang for spin-off and restructure, and major shareholders were cut to **Insurance protection fund (98.2%), SAIC (Shanghai Auto Industry Corp, 1.2%), and Sinopec (0.6%)**. To restructure, total assets of Anbang insurance was split into two parts – the first part of assets including short-term problematic liabilities and the majority of Anbang P&C insurance was ~Rmb510bn, and will be wound down after clean-up; the second part including Anbang life insurance, Anbang Pension, Anbang asset management

and Anbang Auto insurance was ~Rmb700bn and has been transferred to the newly-formed entity Dajia Insurance, which was established in July 2019 with the same three shareholders as Anbang Insurance. On Feb 2020, CBIRC and Dajia Insurance announced that the takeover has come to an end.

Figure 83: Spin-off and restructure of Anbang Insurance

Anbang Insurance				
Short-term liabilities and the majority of Anbang P&C	Anbang Life Insurance	Anbang Auto Insurance	Anbang Pension	Anbang asset management
Rmb510bn To wind down after cleanup		Rmb700bn Dajia Insurance		

Source: Caixin, UBS

II. Dajia Insurance will likely maintain private-owned status after introduction of strategic investors

Dajia Insurance plans to introduce strategic investors and will likely let social capital hold two-thirds of its shares to maintain its private-owned status. That said, under the new shareholding structure, Insurance Protection Fund will likely hold one-third of stakes (vs 98% now), and the rest will be equally divided between foreign capital, private capital, and state-owned capital. According to Caixin, Dajia Insurance is recently valued at Rmb60bn, implying 2x book value, and it has secured several investors with the whole process to be completed in the next three to six months.

III. What are the other stakes held by Dajia Life Insurance?

As part of the restructuring plan, Dajia Insurance has sold stakes in CMB, and is in the process of selling stakes in Chengdu rural commercial bank and Zheshang bank. At end of Sept 2019, Dajia Life Insurance still hold over 5% stake in eight companies as listed below.

Figure 84: By Sept 2019, Dajia Life Insurance holds over 5% stake

Sino Ocean Group	30%
Jindi	20%
Minsheng Bank	18%
Tong Ren Tang	15%
Dashang Group	15%
Changchun Ouya	15%
Financial Street	14%
China Construction	9%

Source: Caixin

Signposts to watch for: the nomination of new board member and senior management, the date of general meeting to approve the nomination, and potential analyst briefing which will be attended by new management to elaborate more on future strategy.

PIVOTAL QUESTIONS

[return](#) ↑**Q: Can Minsheng Banking's strategy on MSE and private company improve its ROE/ROA?****UBS VIEW**

Not in the near-term. We expect that the bank may not improve its ROE/ROA in the near term, as 1) decline in loan yield, especially for MSE loans, and limited deposit contribution from MSEs would weigh on the bank's NIM, and 2) MSEs and private companies are more vulnerable to economic downturns, and the bank's higher exposure to MSEs and private companies may put more pressure on the bank's asset quality, which could keep its credit cost elevated in 2020. As such, we forecast the bank's net profit to decline -5% in 2020, followed by 6% profit growth in 2021-2024, and expect ROE to decline from 12% in 2019 to 9% in 2024

EVIDENCE

MSE loan yield has declined from over 8% previously to 6.7% currently, partly due to a higher portion of secured MSE loans (90%).

Minsheng Bank's deposit franchise is weak, as evidenced that 1) demand deposit accounted for only 39% in 2019, down from 46% at end of 2017 and lower than 43% of JSB average; 2) Total deposit cost was also relatively high at 2.4% in 2019, vs 2.08% at CITIC bank.

The bank's NPL coverage is well below peer at only 156% at end of 2019, well below joint stock bank coverage. The bank's exposure to MSE loan (13% of gross loans) is much higher than other joint stock bank

WHAT'S PRICED IN?

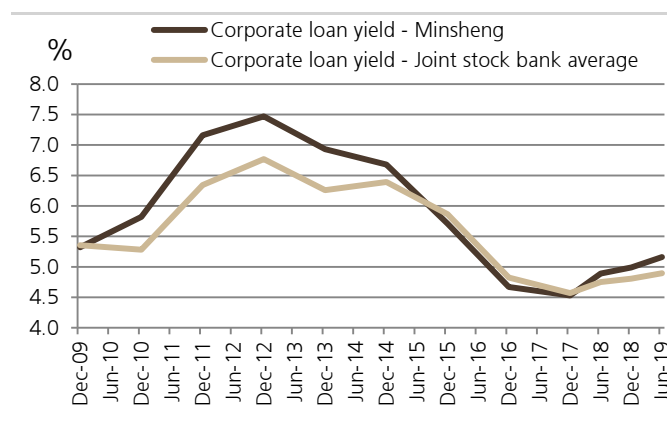
MSB-H is currently trading at 0.4x one-year forward P/BV, at a significant discount to peers. This partly reflects its weaker-than-peer profitability.

Minsheng Banking is the first private-owned national bank in China, and it focuses on serving private sector and MSEs. While loans to MSE and private sector have a relatively high margin, limited deposit contribution from MSE weighed on the bank's NIM, and the bank faces more pressure on asset quality given vulnerability of MSE and private sector to economic downturn.

1. Can Minsheng Bank's NIM outperform peers in 2020?**Over 2009-14 NIM better than JSB average supported by high loan yield:**

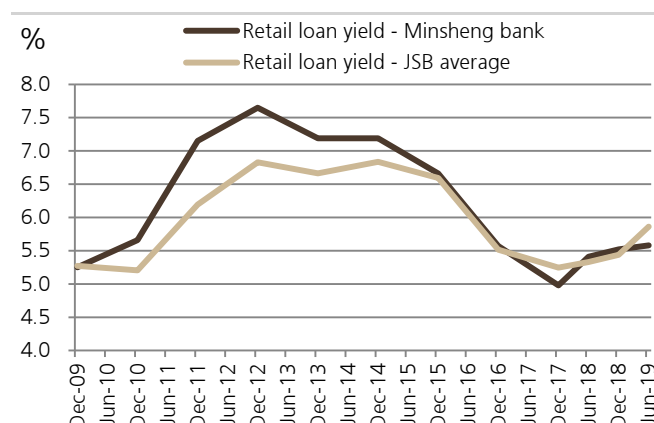
During 2009-2014, Minsheng Bank's focus on loans to MSEs and private sector generated very high loan yield and asset yield. These two client segments contributed the majority of loan book. At end of 2013, POE borrowers contributed 87% and 65% of total corporate clients and gross loan balance, while MSE loans accounted for 26% of gross loan balance. Though Minsheng Bank's deposit franchise was weak, high asset yield more than offsetting funding cost resulted in better NIM than joint-stock average. However, a high risk appetite and aggressive lending growth also came at the cost of asset quality deterioration amid macro slowdown which we will discuss below.

Figure 85: Corp loan yield (Minsheng vs JSB average)



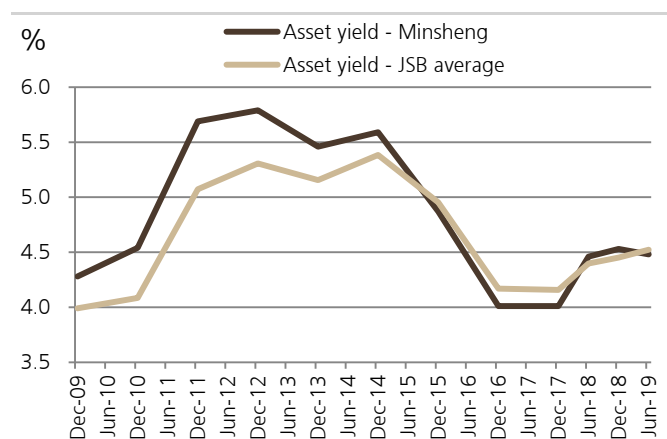
Source: Company data

Figure 86: Retail loan yield (Minsheng vs JSB average)



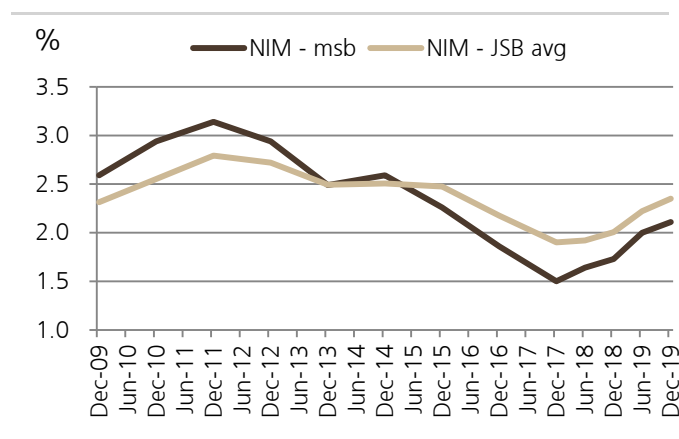
Source: Company data

Figure 87: Asset yield (Minsheng vs JSB average)



Source: Company data

Figure 88: NIM (Minsheng vs JSB average)



Source: Company data

However, we expect the bank's NIM to underperform peers in 2020, due to the following reasons.

I. MSE loan yield may see downward trend

- The bank's MSE strategy to have a very high level of secured MSE loans (at 90%) may see downside risk on NIM. In fact, its MSE loan yield has declined to 6.7% currently from over 8% previously partly due to a higher portion of secured loans.
- Given the business difficulty, the government has called for lowering financing cost to MSEs in 2020. Given the bank's larger loan exposure to MSE loans (13% of gross loan book) than other joint stock banks, we estimate every 50bp decline in MSE loan yield could lead to 3-4bp decline in NIM, all else being equal.

II. Weak deposit franchise and relatively low CET-1 ratio may not support LDR increase

1) Limited deposit contribution from MSE/private sector

One weakness to serve MSE and private sector is the limited deposit contribution from these clients. Large corporate customers are an important source of low-cost

deposits for banks, especially demand deposits maintained at banks for transactional purposes. However, due to their small size and funding constraints, small firms are typically unable to contribute to the low-cost deposit base of banks.

As such, Minsheng Bank's deposit franchise is weak, as evidenced that: 1) Deposits accounted for 59% of total liability at end of 2019, lower than 64% of JSB average; 2) Demand deposit accounted for only 39%, down from 46% at end of 2017 and lower than 43% of JSB average; 3) Total deposit cost was also relatively high at 2.4% in 2019, vs 2.08% at CITIC bank. Time deposit cost for corporate and retail deposits was 3.3% and 3.1% in 2019, respectively, as compared to 3 % and 3.3% at CITIC bank.

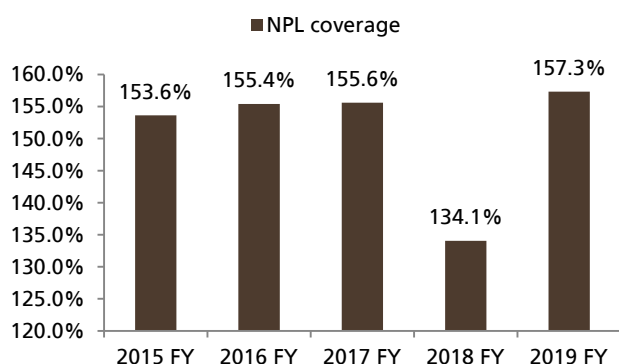
After the relaxation of LDR cap, the bank's LDR increased notably from 75% to 97% at end of 2019, suggesting limited room to further increase LDR.

2) Below-peer CET-1 ratio: The bank's CET-1 ratio was 8.9% at end of 2019, higher than 7.5% regulatory requirement but lower than JSB average.

2. Can Minsheng Bank's credit cost decline in 2020?

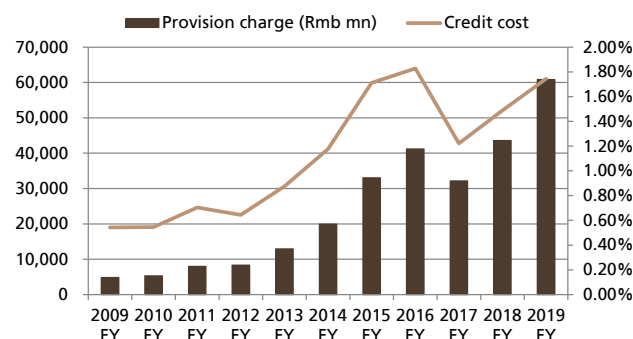
No. We expect the bank's credit cost to remain elevated % in 2020, as 1) the bank's NPL coverage is well below peer at only 156% in 2019, and it needs to book more provisioning to catch up with peers, and 2) the bank's exposure to MSE loan (13% of gross loans) is much higher than other joint stock banks, which may see more pressure on asset quality amid COVID-19 outbreak. We would turn more positive if the bank could show better-than-expected asset quality under its new MSE business model.

Figure 89: NPL coverage ratio



Source: Company data

Figure 90: Credit cost



Source: Company data

Overview of Minsheng Bank's MSE lending

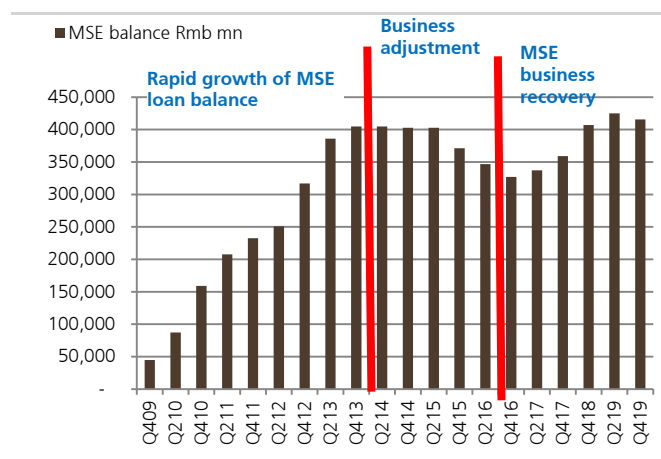
I. Aggressive MSE lending over 2009-2013

Minsheng Banking was the first bank to start large-scale MSE lending as early as 2009. The old business model revolves around key commerce which would refer MSEs to banks and these MSEs would then provide guarantee for each other to get credit lines from banks. The advantage of this model is that 1) MSEs could get a higher credit line via mutual guarantee than it could get on its own; and 2) the bank could acquire a large number of MSEs and ramp up loan balance within a short period time, as it seems that loan scale is the only KPIs for loan officers. As a

result, MSE loans grew exponentially over 2009-2013, from only Rmb45bn at end of 2009 to over Rmb400bn at end of 2013, while at the same time, NPL ratio remained low at below 0.5% at end of 2013.

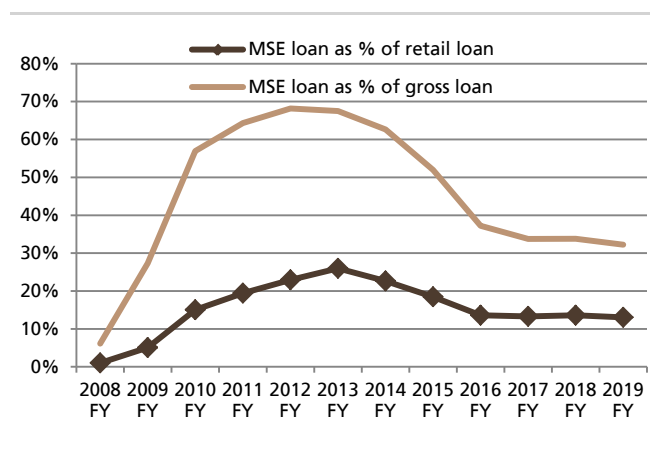
As the bank posted above-average earnings during 2009-2012, MSB-H traded at a premium over other JSBs during Aug-11 and Q414, with its one-year forward P/BV peak at 1.6x in Q113.

Figure 91: Minsheng redeveloped its MSE lending since the beginning of 2017



Source: Company data

Figure 92: MSE loans contributed ~70% of retail loans as of Q213 but now only accounted for 30%+

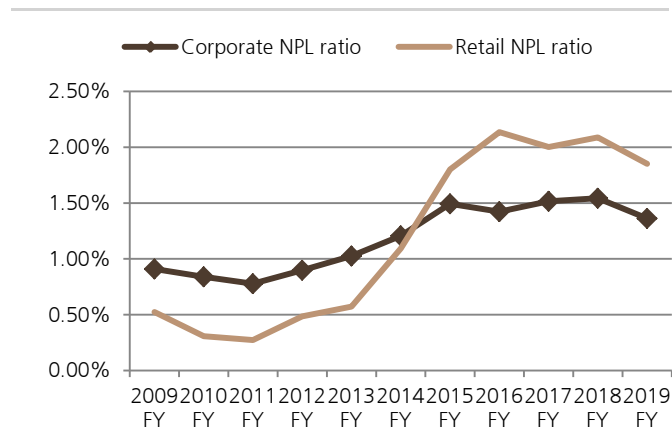


Source: Company data

II. Asset quality deteriorated since 2014 amid economic downturn

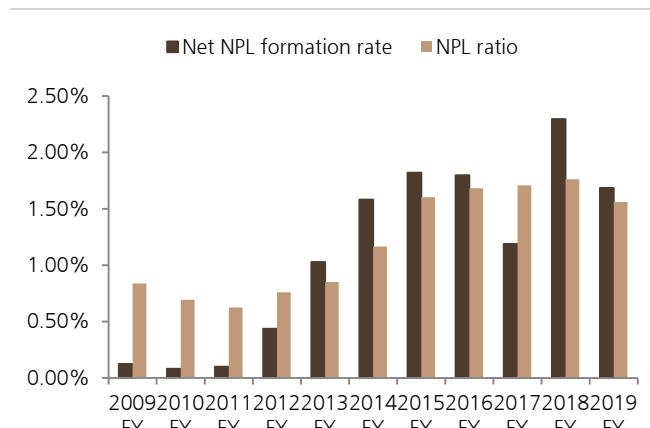
However, the rapid expansion came at the cost of higher NPLs starting from mid-2013. Amid the economic downturn, the bank saw muted growth in MSE loans in 2014 and scaled down its MSE loan balance in 2015-16. The bank's retail NPL ratio quickly increased to over 1% at end of 2014, almost doubling that a year ago. Caixin reported that accumulative NPL ratio for MSE loans peaked at 21% in mid-2016. We believe the flip side of the old business model lies in that the mutual guarantee between MSEs weakened the bank's KYC, which was easily subject to moral hazard, and created high concentration risks.

Figure 93: Retail NPL ratio increased sharply since 2014



Source: Company data

Figure 94: Net NPL formation rate increased to 1.6-1.8% over 2014-16



Source: Company data, UBS

III. Resumed MSE lending since 2017

After disposing the legacy bad MSE loans in 2015 and 2016, Minsheng resumed MSE loan growth from the beginning of 2017. MSE loan balance increased to Rmb455bn at end of 2019, up by 36% from end-2016. But its share of retail loans and gross loans declined from 70% and 26% at end of 2013 to 32% and 13% at end of 2019.

Minsheng Banking has made changes to its old business model. Under the new business model,

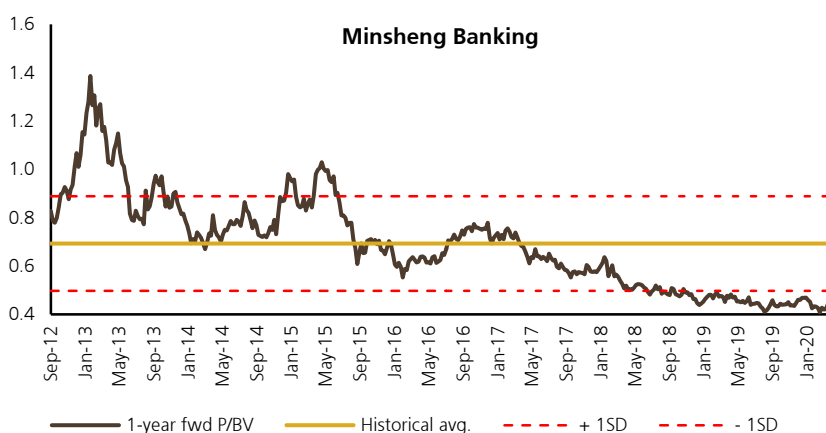
- Higher portion of loans with collateral: Minsheng increased the percentage of loans with collateral partly as a way to check whether MSEs borrow too much. Collateralized loans contributed 76% of MSE loans at end of 2018, up from 47% of MSE loans at end of 2013.
- KPI is linked to the number of MSE clients, not loan scale as in the last cycle
- Smaller ticket size: Take Chongqing branch for example. The average ticket size for new loans extended in 2018 was about Rmb700k in 2018, and the credit line was below Rmb1.5mn.
- Rising fee income from MSEs: the bank's fee income rose 58% YoY in the first ten month in 2018.

IV. New business model to be tested amid COVID-19 outbreak

Historical data (2016-18) shows benign asset quality on MSE loans. NPL ratio and overdue ratio for new MSE loans extended since the beginning of 2016 was 0.19% and 0.42% at end of 2018.

However, COVID-19 outbreak has and will have a significant impact on China's economy in Q1. The bank's new MSE business model will be tested this time, and we will turn more positive if its asset quality is better-than-expected.

WHAT'S PRICED IN?

[return](#) ↑

MSB-H traded at a premium over other JSBs during Aug-11 and Q414, with its one-year forward P/BV peak at 1.6x in Q113, as the bank posted above-average earnings growth over 2009-2012 during which Minsheng focused on MSE lending and its asset quality was relatively benign.

However, against the backdrop of economic downturn as well as some credit cycles in Yangtze River delta, aggressive business expansion in MSE lending and weak risk management resulted in serious asset quality deterioration. As a result, it posted weak earnings growth of below 5% during 2014-2018, and its ROE declined from 20%+ to 13% in 2018. As such, MSB-H valuation was on a downward trend and fell to ~0.5x recently, below the average joint stock bank.

While MSB-H current valuation is undemanding, we expect there is limited upside risk due to three reasons, and hence resume coverage with Neutral.

1) We expect its 2020 earnings growth to remain lower than peers, due to NIM contraction and elevated credit cost given below-peer NPL coverage ratio and potential asset quality deterioration on higher exposure to MSE loans.

2) We suggest investors to wait for more clarity on the bank's strategy after management reshuffle this year and see how/when the strategy will materialise.

UPSIDE/DOWNSIDE SPECTRUM

[return](#) ↑

Minsheng Banking-H is trading at HK\$5.65 (as of 7 April).

Value drivers (2020E)	NIM	Credit cost	COE
\$6.30 upside	2.08%	1.80%	14.3%
\$5.60 base	1.88%	2.00%	14.7%
\$4.10 downside	1.58%	2.30%	16.5%

Source: UBS estimates

Risk to the current share price is skewed (1:27) to the downside

Minsheng Banking-H is trading at HK\$5.65 (as of 6 April).

Upside scenario (HK\$6.30): If economic activities resumption accelerates starting from 2Q20 underpinned by larger fiscal stimulus or rapid rebound in property activities, likely aided by supportive policies. Under such case, policy support will be released in a slower pace, and asset quality could recover in a faster pace. As such, we expect bank's NIM at 2.08%, credit cost lower at 1.80%, and PT at HK\$6.30.

Base case (HK\$5.60): We assume 1.5%/7.5% GDP growth (4.5% CAGR) in 2020/2021, and 33%/24% of covid-related NPL formation will be formed in 2020/2021E. In such case, quarterly GDP will see -5.0% YoY/+1.5% YoY in 1Q20-2Q20. This would translate to 3.0%/2.8% NPL formation in 2020/2021 across banking sector. In this scenario, we expect bank's NIM at 1.88%, credit cost at 2%, and PT at HK\$5.60.

Downside scenario (HK\$4.10): We assume GDP growth in 1Q20 fell more than our economist's estimates, and assume 2Q20 recovery is weaker due to slower resumption or sharper global recession, and thus assume GDP growth would face further downside risk. As such, we assume NPL formation would surge amid slowing economic growth and weaker demand. Under such case, we would expect further stimulus policies to be released (ie, monetary easing policies, asking banks to incrementally lower loan pricing to support the economy); and thus we would expect banks to suffer from rising pressures on NIM. As such, we would expect bank's NIM at 1.58%, credit cost higher at 2.30%, and a fair value of HK\$4.10

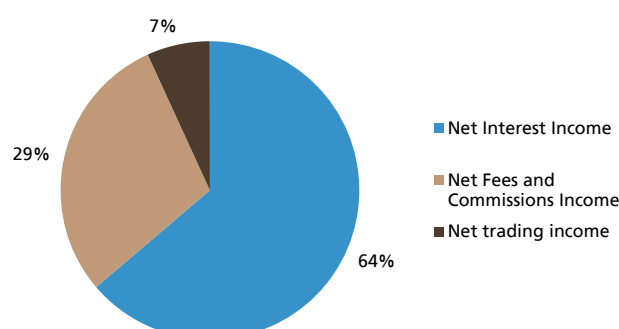
COMPANY DESCRIPTION

[return](#) ↑

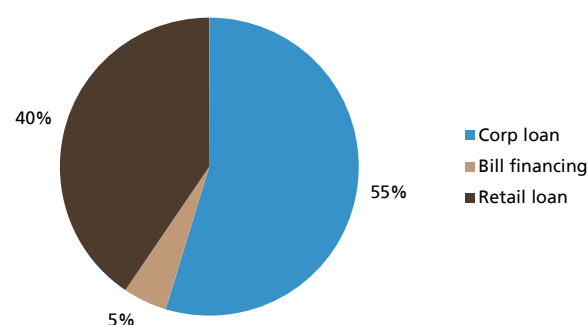
Minsheng Banking was established in 1996, and was the first national joint-stock commercial bank in China founded by non-state-owned enterprises. Minsheng completed its A-share and H-share listings in December 2000 and November 2009, respectively. At the end of 2019, it had Rmb6.7trn total assets, Rmb3.4trn loans and Rmb3.6trn deposits. Among joint-stock banks, Minsheng has the largest portion of loans to private-owned enterprises and micro and small enterprises (MSEs).

Industry outlook

We assume 1.5%/7.5% GDP growth (4.5% CAGR) in 2020/2021, and 33%/24% of shock-related NPL formation will be formed in 2020/2021E. In such case, quarterly GDP will see -5.0% YoY/+1.5% YoY in 1Q20-2Q20. This would translate to 3.0%/2.8% NPL formation in 2020/2021 across banking sector. In this scenario, we think sector earnings would see a 5% YoY decline in average with SML ratio up to 5.6% in 2020E versus 2.9% in 2019 and NPL ratio up to 2.81% from 1.86% in 2019. Coverage ratio could decline to 126%/122% accordingly in the coming two years. NIM wise, given the asset yield pressure from LPR could not be fully offset by funding support from RRR and potential deposit benchmark rate cut, we estimate banks NIM would see mid-to-high single basis point YoY decline

Revenue breakdown (2019)

Source: Company data

EBIT by product segment (2019)

Source: Company data

China Minsheng Banking (1988.HK)

Profit & Loss (Rmb m)	12/17	12/18	12/19	12/20E	% ch	12/21E	% ch	12/22E	12/23E	12/24E
Net interest income	86,552	76,680	97,943	121,872	24.4	132,430	8.7	142,311	154,956	168,805
Total non-interest income	55,395	77,481	79,802	70,022	-12.3	75,530	7.9	81,524	88,048	95,939
Total income	141,947	154,161	177,745	191,894	8.0	207,960	8.4	223,836	243,004	264,744
Total cash expenses	(43,895)	(45,938)	(44,313)	(48,027)	-8.4	(54,605)	-13.7	(60,329)	(67,198)	(75,044)
Pre-depreciation operating profit	98,052	108,223	133,432	143,866	7.8	153,355	6.6	163,507	175,805	189,700
Depreciation & amort (excl. goodwill)	(3,350)	(3,118)	(5,703)	(5,703)	0.0	(5,703)	0.0	(5,703)	(5,703)	(5,703)
Operating profit pre provisions	94,702	105,105	127,729	138,163	8.2	147,652	6.9	157,804	170,102	183,997
Total provisions	(34,140)	(46,320)	(62,991)	(77,151)	-22.5	(82,870)	-7.4	(89,311)	(97,238)	(106,409)
Operating profit post provisions	60,562	58,785	64,738	61,013	-5.8	64,782	6.2	68,493	72,865	77,588
Income from associates & JVs (pre-tax)	0	0	0	0	-	0	-	0	0	0
Other pre-tax items	0	0	0	0	-	0	-	0	0	0
Profit before tax (UBS)	60,562	58,785	64,738	61,013	-5.8	64,782	6.2	68,493	72,865	77,588
Exceptionals (incl goodwill)	0	0	0	0	-	0	-	0	0	0
Profit before tax	60,562	58,785	64,738	61,013	-5.8	64,782	6.2	68,493	72,865	77,588
Tax	(9,640)	(8,455)	(9,814)	(9,152)	6.7	(9,717)	-6.2	(10,274)	(10,930)	(11,638)
Profit after tax	50,922	50,330	54,924	51,861	-5.6	55,065	6.2	58,219	61,935	65,950
Other post-tax items	0	0	0	0	-	0	-	0	0	0
Preference dividends	0	0	0	0	-	0	-	0	0	0
Minorities	(1,109)	(3)	(1,105)	(800)	27.6	(800)	0.0	(800)	(800)	(800)
Net earnings (local GAAP)	49,813	50,327	53,819	51,061	-5.1	54,265	6.3	57,419	61,135	65,150
Net earnings (before pref divs)	49,813	50,327	53,819	51,061	-5.1	54,265	6.3	57,419	61,135	65,150
Net earnings (UBS)	49,813	50,327	53,819	51,061	-5.1	54,265	6.3	57,419	61,135	65,150
Per share (Rmb)	12/17	12/18	12/19	12/20E	% ch	12/21E	% ch	12/22E	12/23E	12/24E
EPS (local GAAP, basic)	1.14	1.15	1.23	1.17	-5.1	1.24	6.3	1.31	1.40	1.49
EPS (UBS, diluted)	1.14	1.15	1.23	1.17	-5.1	1.24	6.3	1.31	1.40	1.49
PPOP (diluted)	2.16	2.40	2.92	3.16	8.2	3.37	6.9	3.60	3.89	4.20
Net DPS	0.17	0.35	0.37	0.35	-5.4	0.37	6.3	0.39	0.42	0.45
BVPS	8.43	9.37	10.25	12.61	23.0	13.50	7.1	14.44	15.44	16.51
BVPS (UBS)	8.43	9.37	10.25	12.61	23.0	13.50	7.1	14.44	15.44	16.51
Balance sheet (Rmb m)	12/17	12/18	12/19	12/20E	% ch	12/21E	% ch	12/22E	12/23E	12/24E
Banking assets (year-end)	5,902,086	5,994,822	6,681,841	7,242,831	8.4	7,797,494	7.7	8,398,126	9,049,279	9,755,445
Banking assets (average)	5,898,982	5,948,454	6,338,332	6,962,336	9.8	7,520,162	8.0	8,097,810	8,723,702	9,402,362
Total assets (year-end)	5,902,086	5,994,822	6,681,841	7,242,831	8.4	7,797,494	7.7	8,398,126	9,049,279	9,755,445
Risk weighted assets (RWA) (year-end)	4,340,262	4,656,286	5,117,026	5,466,024	6.8	5,829,113	6.6	6,226,749	6,637,673	7,103,235
Risk weighted assets (RWA) (average)	4,063,168	4,498,274	4,886,656	5,291,525	8.3	5,647,568	6.7	6,027,931	6,432,211	6,870,454
Customer loans	2,729,788	3,008,272	3,430,427	3,821,928	11.4	4,128,993	8.0	4,461,196	4,810,079	5,186,049
Customer loans (average)	2,563,490	2,869,030	3,219,350	3,626,177	12.6	3,975,460	9.6	4,295,094	4,635,637	4,998,064
Interest earning assets (average)	5,754,454	5,660,586	5,832,303	6,474,243	11.0	7,029,427	8.6	7,532,318	8,075,790	8,663,718
Customer deposits	2,966,311	3,194,441	3,637,034	3,899,823	7.2	4,220,176	8.2	4,567,221	4,943,213	5,350,597
Common s/h equity (year-end)	369,078	410,183	448,985	552,139	23.0	591,086	7.1	632,226	676,135	722,944
Common s/h equity (average)	350,888	389,630	429,584	500,562	16.5	571,613	14.2	611,656	654,180	699,540
Total SHF (equity, pref & MI) (year-end)	379,920	421,110	460,969	565,066	22.6	605,013	7.1	647,153	692,062	739,871
Total SHF (equity, pref & MI) (average)	361,027	400,515	441,039	513,018	16.3	585,040	14.0	626,083	669,607	715,967
Net tangible assets	379,920	421,110	460,969	565,066	22.6	605,013	7.1	647,153	692,062	739,871
Balance sheet structure (%)	12/17	12/18	12/19	12/20E	% ch	12/21E	% ch	12/22E	12/23E	12/24E
Loans / banking assets (year-end)	46.3	50.2	51.3	52.8	2.8	53.0	0.3	53.1	53.2	53.2
Deposits / banking assets (year-end)	50.3	53.3	54.4	53.8	-1.1	54.1	0.5	54.4	54.6	54.8
Loans / deposits	92.0	94.2	94.3	98.0	3.9	97.8	-0.2	97.7	97.3	96.9
Total SHF / banking assets (year-end)	6.4	7.0	6.9	7.8	13.1	7.8	-0.5	7.7	7.6	7.6

Source: Company accounts, UBS estimates. (UBS) metrics use reported figures which have been adjusted by UBS analysts.

China Minsheng Banking (1988.HK)

	12/17	12/18	12/19	12/20E	12/21E	12/22E	12/23E	12/24E
Capital adequacy (Rmb m)								
Tier 1 capital	385,585	426,551	525,959	576,545	615,492	656,632	700,541	747,350
Total capital	514,571	547,281	673,740	729,294	771,872	816,988	865,006	916,471
Risk weighted assets (RWA) (year-end)	4,340,262	4,656,286	5,117,026	5,466,024	5,829,113	6,226,749	6,637,673	7,103,235
Core tier 1 ratio %	8.6	8.9	8.9	8.9	9.0	9.1	9.2	9.3
Tier 1 ratio %	8.9	9.2	10.3	10.5	10.6	10.5	10.6	10.5
Total capital ratio %	11.9	11.8	13.2	13.3	13.2	13.1	13.0	12.9
Tangible equity	369,078	410,183	448,985	552,139	591,086	632,226	676,135	722,944
Equity / assets %	6.3	6.8	6.7	7.6	7.6	7.5	7.5	7.4
Tangible equity to tangible assets %	6.3	6.8	6.7	7.6	7.6	7.5	7.5	7.4
Asset quality (Rmb m)								
Non-performing assets	47,889	53,866	54,434	102,634	106,620	112,898	114,529	113,009
Total risk reserves	74,519	71,216	84,647	125,540	135,805	146,896	169,427	195,329
NPLs / loans %	1.7	1.7	1.5	2.6	2.5	2.5	2.3	2.1
NPL coverage %	155.6	132.2	155.5	122.3	127.4	130.1	147.9	172.8
Provision charge / average loans %	1.3	1.5	1.9	2.1	2.0	2.0	2.0	2.1
Net NPAs / shareholders funds %	(7.0)	(4.1)	(6.6)	(4.1)	(4.8)	(5.3)	(7.9)	(11.1)
Profitability (%)								
Net interest margin (avg assets)	1.47	1.29	1.55	1.75	1.76	1.76	1.78	1.80
Provisions / operating profit	36.0	44.1	49.3	55.8	56.1	56.6	57.2	57.8
ROE (UBS earnings)	14.2	12.9	12.5	10.2	9.5	9.4	9.3	9.3
RoAdjE (UBS earnings & equity)	14.2	12.9	12.5	10.2	9.5	9.4	9.3	9.3
RoRWA (UBS)	1.25	1.12	1.12	0.98	0.98	0.97	0.96	0.96
RoA (UBS earnings)	0.86	0.85	0.87	0.74	0.73	0.72	0.71	0.70
Productivity (%)								
Cost income ratio	33.3	31.8	28.1	28.0	29.0	29.5	30.0	30.5
Cost / average assets	0.80	0.82	0.79	0.77	0.80	0.82	0.84	0.86
Compensation expense ratio	21.0	19.8	17.8	17.6	18.3	18.7	19.1	19.4
Growth (%)								
Revenue	-6.0	8.6	15.3	8.0	8.4	7.6	8.6	8.9
Operating profit pre provisions	-6.8	11.0	21.5	8.2	6.9	6.9	7.8	8.2
Net earnings (UBS)	4.1	1.0	6.9	-5.1	6.3	5.8	6.5	6.6
Net DPS	-25.0	97.1	7.2	-5.4	6.3	5.8	6.5	6.6
Total assets (year-end)	0.1	1.6	11.5	8.4	7.7	7.7	7.8	7.8
Customer loans	13.9	10.2	14.0	11.4	8.0	8.0	7.8	7.8
Customer deposits	-3.8	7.7	13.9	7.2	8.2	8.2	8.2	8.2
Value (x)								
Market cap/revenues	1.7	1.5	1.2	1.2	1.1	1.0	0.9	0.8
Market cap/deposits	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0
P/PPOP (diluted)	2.7	2.1	1.7	1.6	1.5	1.4	1.3	1.2
P/E (local GAAP, basic)	5.1	4.4	4.0	4.4	4.1	3.9	3.7	3.4
P/E (UBS, diluted)	5.1	4.4	4.0	4.4	4.1	3.9	3.7	3.4
Net dividend yield %	3.0	6.7	7.5	6.8	7.3	7.7	8.2	8.7
P/BV x	0.7	0.5	0.5	0.4	0.4	0.4	0.3	0.3
P/BV (UBS) x	0.7	0.5	0.5	0.4	0.4	0.4	0.3	0.3

Source: Company accounts, UBS estimates. (UBS) metrics use reported figures which have been adjusted by UBS analysts.

UBS Research THESIS MAP a guide to our thinking and what's where in this report

PIVOTAL QUESTIONS

Q: Is uncertainty on new shareholder and management removed?

No. The board and management reshuffle has been postponed due to the COVID-19 outbreak. So far there is little visibility on how the largest shareholder Dajia Insurance will play a role in the board, or how the new strategy will play out, which will take some years to materialise. We suggest investors wait for more clarity.

Q: Can Minsheng Bank's strategy on MSE and private company improve its ROE/ROA?

Not in the near term. We expect that the bank may not improve its ROE/ROA in the near to medium term, as 1) decline in loan yield, especially for MSE loans, and limited deposit contribution from MSEs could weigh on the bank's NIM, and 2) the bank's higher exposure to MSEs and private companies may put more pressure on the bank's asset quality, which could keep its credit cost elevated in 2020. As such, we forecast the bank's net profit to decline -5% in 2020, followed by 6% profit growth in 2021-2024, and expect ROE to decline from 12% in 2019 to 9% in 2024.

Q: Is the outlook for retail banking more negative than corporate banking?

Yes, at least in the next few months. We expect consumer loan growth for the banking industry to slow to 7% YoY in 2020 from 16% in 2019, given rising unemployment pressure, weakened income growth outlook, and disruption to consumption activities. Asset quality of JSBs with higher exposure to non-mortgage consumer credit will likely be under greater pressure.

UBS VIEW

We have a Neutral rating. In 2020, Minsheng Banking will start the eighth change of session of the board, and so far there is little visibility on the bank's new strategy. We expect its 2020 earnings growth to remain lower than peers due to NIM contraction and elevated credit cost. Minsheng Banking-A is trading at 0.44x one-year forward P/BV, a discount to peers. We believe the undemanding valuation has largely priced in investors' concerns over weak earnings growth. But we suggest investors wait until uncertainty on new shareholder and management is removed.

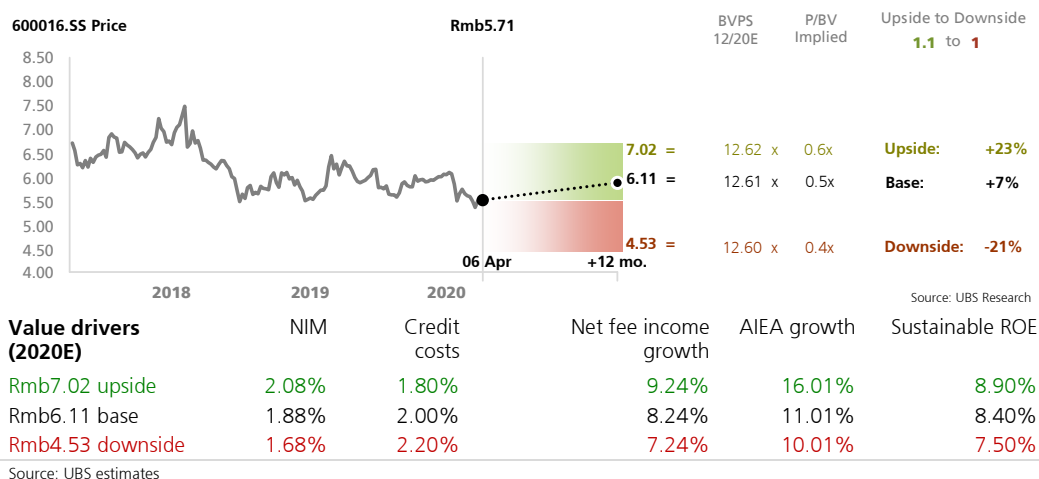
EVIDENCE

NPL coverage ratio was 156% at end of 2019, well below peers, and the bank has larger exposure to MSE (13% of gross loans) and private sector than peers, which are more vulnerable to economic downturn. In addition, the government calls for lowering lending rate to support the real economy. This, along with a higher portion of secured MSE loans (90%), could weigh on the bank's NIM.

WHAT'S PRICED IN?

Minsheng Banking-A is trading at 0.44x one-year forward P/BV, a discount to peers. We believe the undemanding valuation has largely priced in investors' concerns over weak earnings growth. But we suggest investors wait until uncertainty on new shareholder and management is removed.

UPSIDE / DOWNSIDE SPECTRUM



Valuation Method and Risk Statement

We derive our price targets for H-share China banks based on a three-stage dividend discount model (DDM). We also adopt a DDM methodology to derive our price targets for A-share banks.

We think the major risks for China banks are: 1) deterioration in asset quality, underpinned by a slower macro environment and domestic property market activity; 2) regulatory risks related to capital, liquidity and off-balance-sheet activities of banks; 3) deterioration in funding structure and balance-sheet liquidity positions, driven by a potential roll-over of loans and a lengthening of asset duration; and 4) liberalisation of interest rates in the medium term and the consequent pressure on bank profitability.

Required Disclosures

This report has been prepared by UBS Securities Asia Limited, an affiliate of UBS AG. UBS AG, its subsidiaries, branches and affiliates are referred to herein as UBS.

For information on the ways in which UBS manages conflicts and maintains independence of its research product; historical performance information; and certain additional disclosures concerning UBS research recommendations, please visit www.ubs.com/disclosures. The figures contained in performance charts refer to the past; past performance is not a reliable indicator of future results. Additional information will be made available upon request. UBS Securities Co. Limited is licensed to conduct securities investment consultancy businesses by the China Securities Regulatory Commission. UBS acts or may act as principal in the debt securities (or in related derivatives) that may be the subject of this report. This recommendation was finalized on: 07 April 2020 10:51 PM GMT. UBS has designated certain Research department members as Derivatives Research Analysts where those department members publish research principally on the analysis of the price or market for a derivative, and provide information reasonably sufficient upon which to base a decision to enter into a derivatives transaction. Where Derivatives Research Analysts co-author research reports with Equity Research Analysts or Economists, the Derivatives Research Analyst is responsible for the derivatives investment views, forecasts, and/or recommendations.

Analyst Certification: Each research analyst primarily responsible for the content of this research report, in whole or in part, certifies that with respect to each security or issuer that the analyst covered in this report: (1) all of the views expressed accurately reflect his or her personal views about those securities or issuers and were prepared in an independent manner, including with respect to UBS, and (2) no part of his or her compensation was, is, or will be, directly or indirectly, related to the specific recommendations or views expressed by that research analyst in the research report.

UBS Investment Research: Global Equity Rating Definitions

12-Month Rating	Definition	Coverage ¹	IB Services ²
Buy	FSR is > 6% above the MRA.	48%	32%
Neutral	FSR is between -6% and 6% of the MRA.	40%	28%
Sell	FSR is > 6% below the MRA.	13%	20%
Short-Term Rating	Definition	Coverage ³	IB Services ⁴
Buy	Stock price expected to rise within three months from the time the rating was assigned because of a specific catalyst or event.	<1%	<1%
Sell	Stock price expected to fall within three months from the time the rating was assigned because of a specific catalyst or event.	<1%	<1%

Source: UBS. Rating allocations are as of 31 March 2020.

1: Percentage of companies under coverage globally within the 12-month rating category.

2: Percentage of companies within the 12-month rating category for which investment banking (IB) services were provided within the past 12 months.

3: Percentage of companies under coverage globally within the Short-Term rating category.

4: Percentage of companies within the Short-Term rating category for which investment banking (IB) services were provided within the past 12 months.

KEY DEFINITIONS: **Forecast Stock Return (FSR)** is defined as expected percentage price appreciation plus gross dividend yield over the next 12 months. In some cases, this yield may be based on accrued dividends. **Market Return Assumption (MRA)** is defined as the one-year local market interest rate plus 5% (a proxy for, and not a forecast of, the equity risk premium). **Under Review (UR)** Stocks may be flagged as UR by the analyst, indicating that the stock's price target and/or rating are subject to possible change in the near term, usually in response to an event that may affect the investment case or valuation. **Short-Term Ratings** reflect the expected near-term (up to three months) performance of the stock and do not reflect any change in the fundamental view or investment case. **Equity Price Targets** have an investment horizon of 12 months.

EXCEPTIONS AND SPECIAL CASES: UK and European Investment Fund ratings and definitions are: **Buy:** Positive on factors such as structure, management, performance record, discount; **Neutral:** Neutral on factors such as structure, management, performance record, discount; **Sell:** Negative on factors such as structure, management, performance record, discount. **Core Banding Exceptions (CBE):** Exceptions to the standard +/-6% bands may be granted by the Investment Review Committee (IRC). Factors considered by the IRC include the stock's volatility and the credit spread of the respective company's debt. As a result, stocks deemed to be very high or low risk may be subject to higher or lower bands as they relate to the rating. When such exceptions apply, they will be identified in the Company Disclosures table in the relevant research piece.

Research analysts contributing to this report who are employed by any non-US affiliate of UBS Securities LLC are not registered/qualified as research analysts with FINRA. Such analysts may not be associated persons of UBS Securities LLC and therefore are not subject to the FINRA restrictions on communications with a subject company, public appearances, and trading securities held by a research analyst account. The name of each affiliate and analyst employed by that affiliate contributing to this report, if any, follows.

UBS AG Hong Kong Branch: May Yan; Alex Ye; Alex Zhou. **UBS Securities Co. Limited:** Edward Du; Julie Hou.

Company Disclosures

Company Name	Reuters	12-month rating	Short-term rating	Price	Price date
Agricultural Bank of China ^{7, 18}	1288.HK	Neutral	N/A	HK\$3.12	07 Apr 2020
Agricultural Bank of China - A ^{7, 18}	601288.SS	Neutral	N/A	Rmb3.42	07 Apr 2020
Bank of China ^{2, 4, 5, 6a, 6b, 7, 16, 18, 22}	3988.HK	Buy	N/A	HK\$3.01	07 Apr 2020
Bank of China (Group) - A ^{2, 4, 5, 6a, 6b, 7, 16, 18, 22}	601988.SS	Buy	N/A	Rmb3.51	07 Apr 2020
Bank of Communications ^{5, 7, 18}	3328.HK	Neutral	N/A	HK\$4.85	07 Apr 2020
China CITIC Bank ^{2, 4, 7, 18, 22}	0998.HK	Neutral	N/A	HK\$3.82	07 Apr 2020
China CITIC Bank - A ^{2, 4, 7, 18, 22}	601998.SS	Neutral	N/A	Rmb5.18	07 Apr 2020
China Construction Bank ^{4, 7, 16, 18}	0939.HK	Buy	N/A	HK\$6.30	07 Apr 2020
China Construction Bank - A ^{4, 7, 16, 18}	601939.SS	Buy	N/A	Rmb6.42	07 Apr 2020
China Merchants Bank ^{7, 16, 18}	3968.HK	Neutral	N/A	HK\$35.00	07 Apr 2020
China Merchants Bank - A ^{7, 16, 18}	600036.SS	Buy	N/A	Rmb32.52	07 Apr 2020
China Minsheng Banking ^{2, 4, 7, 13, 18, 22}	1988.HK	Suspended	N/A	HK\$5.70	07 Apr 2020
China Minsheng Banking - A ^{2, 4, 7, 13, 18, 22}	600016.SS	Suspended	N/A	Rmb5.78	07 Apr 2020
Chongqing Rural Commercial Bank ¹⁸	3618.HK	Neutral	N/A	HK\$3.14	07 Apr 2020
Huishang Bank ⁴	3698.HK	Sell	N/A	HK\$2.90	07 Apr 2020
Industrial & Commercial Bank of China ^{2, 4, 6a, 6b, 7, 12, 16, 18, 22}	1398.HK	Buy	N/A	HK\$5.27	07 Apr 2020
Industrial & Commercial Bank of China A ^{2, 4, 6a, 6b, 7, 12, 16, 18, 22}	601398.SS	Buy	N/A	Rmb5.16	07 Apr 2020
Ping An Bank ^{7, 22}	000001.SZ	Buy	N/A	Rmb12.88	07 Apr 2020
Postal Savings Bank of China ^{2, 4, 7, 22}	1658.HK	Buy	N/A	HK\$4.71	07 Apr 2020

Source: UBS. All prices as of local market close.

Ratings in this table are the most current published ratings prior to this report. They may be more recent than the stock pricing date

2. UBS AG, its affiliates or subsidiaries has acted as manager/co-manager in the underwriting or placement of securities of this company/entity or one of its affiliates within the past 12 months.
4. Within the past 12 months, UBS AG, its affiliates or subsidiaries has received compensation for investment banking services from this company/entity or one of its affiliates.
5. UBS AG, its affiliates or subsidiaries expect to receive or intend to seek compensation for investment banking services from this company/entity within the next three months.
- 6a. This company/entity is, or within the past 12 months has been, a client of UBS Securities LLC, and non-investment banking securities-related services are being, or have been, provided.
- 6b. This company/entity is, or within the past 12 months has been, a client of UBS Securities LLC, and non-securities services are being, or have been, provided.

- 7. Within the past 12 months, UBS Securities LLC and/or its affiliates have received compensation for products and services other than investment banking services from this company/entity.
- 12. An employee of UBS AG is an officer, director, or advisory board member of this company.
- 13. UBS AG, its affiliates or subsidiaries beneficially owned 1% or more of a class of this company's common equity securities as of last month's end (or the prior month's end if this report is dated less than 10 days after the most recent month's end).
- 16. UBS Securities Hong Kong Limited is a market maker in the Hong Kong-listed securities of this company.
- 18. Market capitalisation is calculated by multiplying the current share price by the sum of A and H shares.
- 22. UBS AG, its affiliates or subsidiaries held other significant financial interests in this company/entity as of last month's end (or the prior month's end if this report is dated less than 10 working days after the most recent month's end).

Unless otherwise indicated, please refer to the Valuation and Risk sections within the body of this report. For a complete set of disclosure statements associated with the companies discussed in this report, including information on valuation and risk, please contact UBS Securities LLC, 1285 Avenue of Americas, New York, NY 10019, USA, Attention: Investment Research.

The Disclaimer relevant to Global Wealth Management clients follows the Global Disclaimer.

Global Disclaimer

This document has been prepared by UBS Securities Asia Limited, an affiliate of UBS AG. UBS AG, its subsidiaries, branches and affiliates are referred to herein as UBS.

This Document is provided solely to recipients who are expressly authorized by UBS to receive it. If you are not so authorized you must immediately destroy the Document.

Global Research is provided to our clients through UBS Neo, and in certain instances, UBS.com and any other system or distribution method specifically identified in one or more communications distributed through UBS Neo or UBS.com (each a system) as an approved means for distributing Global Research. It may also be made available through third party vendors and distributed by UBS and/or third parties via e-mail or alternative electronic means. The level and types of services provided by Global Research to a client may vary depending upon various factors such as a client's individual preferences as to the frequency and manner of receiving communications, a client's risk profile and investment focus and perspective (e.g., market wide, sector specific, long-term, short-term, etc.), the size and scope of the overall client relationship with UBS and legal and regulatory constraints.

All Global Research is available on UBS Neo. Please contact your UBS sales representative if you wish to discuss your access to UBS Neo.

When you receive Global Research through a System, your access and/or use of such Global Research is subject to this Global Research Disclaimer and to the UBS Neo Platform Use Agreement (the "Neo Terms") together with any other relevant terms of use governing the applicable System.

When you receive Global Research via a third party vendor, e-mail or other electronic means, you agree that use shall be subject to this Global Research Disclaimer, the Neo Terms and where applicable the UBS Investment Bank terms of business (<https://www.ubs.com/global/en/investment-bank/regulatory.html>) and to UBS's Terms of Use/Disclaimer (<http://www.ubs.com/global/en/legalinfo2/disclaimer.html>). In addition, you consent to UBS processing your personal data and using cookies in accordance with our Privacy Statement (<http://www.ubs.com/global/en/legalinfo2/privacy.html>) and cookie notice (<http://www.ubs.com/global/en/homepage/cookies/cookie-management.html>).

If you receive Global Research, whether through a System or by any other means, you agree that you shall not copy, revise, amend, create a derivative work, provide to any third party, or in any way commercially exploit any UBS research provided via Global Research or otherwise, and that you shall not extract data from any research or estimates provided to you via Global Research or otherwise, without the prior written consent of UBS.

This document is for distribution only as may be permitted by law. It 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 or would subject UBS to any registration or licensing requirement within such jurisdiction.

This document is a general communication and is educational in nature; it is not an advertisement nor is it a solicitation or an offer to buy or sell any financial instruments or to participate in any particular trading strategy. Nothing in this document constitutes a representation that any investment strategy or recommendation is suitable or appropriate to an investor's individual circumstances or otherwise constitutes a personal recommendation. By providing this document, none of UBS or its representatives has any responsibility or authority to provide or have provided investment advice in a fiduciary capacity or otherwise. Investments involve risks, and investors should exercise prudence and their own judgment in making their investment decisions. None of UBS or its representatives is suggesting that the recipient or any other person take a specific course of action or any action at all. By receiving this document, the recipient acknowledges and agrees with the intended purpose described above and further disclaims any expectation or belief that the information constitutes investment advice to the recipient or otherwise purports to meet the investment objectives of the recipient. The financial instruments described in the document may not be eligible for sale in all jurisdictions or to certain categories of investors.

Options, structured derivative products and futures (including OTC derivatives) are not suitable for all investors. Trading in these instruments is considered risky and may be appropriate only for sophisticated investors. Prior to buying or selling an option, and for the complete risks relating to options, you must receive a copy of "The Characteristics and Risks of Standardized Options." You may read the document at <http://www.theocc.com/publications/risks/riskchap1.jsp> or ask your salesperson for a copy. Various theoretical explanations of the risks associated with these instruments have been published. Supporting documentation for any claims, comparisons, recommendations, statistics or other technical data will be supplied upon request. Past performance is not necessarily indicative of future results. Transaction costs may be significant in option strategies calling for multiple purchases and sales of options, such as spreads and straddles. Because of the importance of tax considerations to many options transactions, the investor considering options should consult with his/her tax advisor as to how taxes affect the outcome of contemplated options transactions.

Mortgage and asset-backed securities may involve a high degree of risk and may be highly volatile in response to fluctuations in interest rates or other market conditions. Foreign currency rates of exchange may adversely affect the value, price or income of any security or related instrument referred to in the document. For investment advice, trade execution or other enquiries, clients should contact their local sales representative.

The value of any investment or income may go down as well as up, and investors may not get back the full (or any) amount invested. Past performance is not necessarily a guide to future performance. Neither UBS nor any of its directors, employees or agents accepts any liability for any loss (including investment loss) or damage arising out of the use of all or any of the Information.

Prior to making any investment or financial decisions, any recipient of this document or the information should take steps to understand the risk and return of the investment and seek individualized advice from his or her personal financial, legal, tax and other professional advisors that takes into account all the particular facts and circumstances of his or her investment objectives.

Any prices stated in this document are for information purposes only and do not represent valuations for individual securities or other financial instruments. There is no representation that any transaction can or could have been effected at those prices, and any prices do not necessarily reflect UBS's internal books and records or theoretical model-based valuations and may be based on certain assumptions. Different assumptions by UBS or any other source may yield substantially different results.

No representation or warranty, either expressed or implied, is provided in relation to the accuracy, completeness or reliability of the information contained in any materials to which this document relates (the "Information"), except with respect to Information concerning UBS. The Information is not intended to be a complete statement or summary of the securities, markets or developments referred to in the document. UBS does not undertake to update or keep current the Information. Any opinions expressed in this document may change without notice and may differ or be contrary to opinions expressed by other business areas or groups, personnel or other representative of UBS. Any statements contained in this report attributed to a third party represent UBS's interpretation of the data, information and/or opinions provided by that third party either publicly or through a subscription service, and such use and interpretation have not been reviewed by the third party. In no circumstances may this document or any of the Information (including any forecast, value, index or other calculated amount ("Values")) be used for any of the following purposes:

- (i) valuation or accounting purposes;
- (ii) to determine the amounts due or payable, the price or the value of any financial instrument or financial contract; or
- (iii) to measure the performance of any financial instrument including, without limitation, for the purpose of tracking the return or performance of any Value or of defining the asset allocation of portfolio or of computing performance fees.

By receiving this document and the Information you will be deemed to represent and warrant to UBS that you will not use this document or any of the Information for any of the above purposes or otherwise rely upon this document or any of the Information.

UBS has policies and procedures, which include, without limitation, independence policies and permanent information barriers, that are intended, and upon which UBS relies, to manage potential conflicts of interest and control the flow of information within divisions of UBS and among its subsidiaries, branches and affiliates. For further information on the ways in which UBS manages conflicts and maintains independence of its research products, historical performance information and certain additional disclosures concerning UBS research recommendations, please visit www.ubs.com/disclosures.

Research will initiate, update and cease coverage solely at the discretion of UBS Research Management, which will also have sole discretion on the timing and frequency of any published research product. The analysis contained in this document is based on numerous assumptions. All material information in relation to published research reports, such as valuation methodology, risk statements, underlying assumptions (including sensitivity analysis of those assumptions), ratings history etc. as required by the Market Abuse Regulation, can be found on UBS Neo. Different assumptions could result in materially different results.

The analyst(s) responsible for the preparation of this document may interact with trading desk personnel, sales personnel and other parties for the purpose of gathering, applying and interpreting market information. UBS relies on information barriers to control the flow of information contained in one or more areas within UBS into other areas, units, groups or affiliates of UBS. The compensation of the analyst who prepared this document is determined exclusively by research management and senior management (not including investment banking). Analyst compensation is not based on investment banking revenues; however, compensation may relate to the revenues of UBS and/or its divisions as a whole, of which investment banking, sales and trading are a part, and UBS's subsidiaries, branches and affiliates as a whole.

For financial instruments admitted to trading on an EU regulated market: UBS AG, its affiliates or subsidiaries (excluding UBS Securities LLC) acts as a market maker or liquidity provider (in accordance with the interpretation of these terms under English law or, if not carried out by UBS in the UK the law of the relevant jurisdiction in which UBS determines it carries out the activity) in the financial instruments of the issuer save that where the activity of liquidity provider is carried out in accordance with the definition given to it by the laws and regulations of any other EU jurisdictions, such information is separately disclosed in this document. For financial instruments admitted to trading on a non-EU regulated market: UBS may act as a market maker save that where this activity is carried out in the US in accordance with the definition given to it by the relevant laws and regulations, such activity will be specifically disclosed in this document. UBS may have issued a warrant the value of which is based on one or more of the financial instruments referred to in the document. UBS and its affiliates and employees may have long or short positions, trade as principal and buy and sell in instruments or derivatives identified herein; such transactions or positions may be inconsistent with the opinions expressed in this document.

Within the past 12 months UBS AG, its affiliates or subsidiaries may have received or provided investment services and activities or ancillary services as per MiFID II which may have given rise to a payment or promise of a payment in relation to these services from or to this company.

Where Global Research refers to "UBS Evidence Lab Inside" or has made use of data provided by UBS Evidence Lab you understand that UBS Evidence Lab is a separate department to Global Research and that UBS Evidence Lab does not provide research, investment recommendations or advice.

United Kingdom: This material is distributed by UBS AG, London Branch to persons who are eligible counterparties or professional clients. UBS AG, London Branch is authorised by the Prudential Regulation Authority and subject to regulation by the Financial Conduct Authority and limited regulation by the Prudential Regulation Authority. **Europe:** Except as otherwise specified herein, these materials are distributed by UBS Europe SE, a subsidiary of UBS AG, to persons who are eligible counterparties or professional clients (as detailed in the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin) Rules and according to MiFID) and are only available to such persons. The information does not apply to, and should not be relied upon by, retail clients. UBS Europe SE is authorised by the [European Central Bank (ECB)] and regulated by the BaFin and the ECB. **France:** Prepared by UBS Europe SE and distributed by UBS Europe SE and UBS Securities France S.A. UBS Securities France S.A. is regulated by the ACPR (Autorité de Contrôle Prudentiel et de Résolution) and the Autorité des Marchés Financiers (AMF). Where an analyst of UBS Securities France S.A. has contributed to this document, the document is also deemed to have been prepared by UBS Securities France S.A. **Germany, Luxembourg, the Netherlands, Belgium and Ireland:** Prepared by UBS AG, London Branch and distributed by UBS AG, London Branch and UBS Europe SE. **Spain:** Prepared by UBS Europe SE and distributed by UBS Europe SE and UBS Securities España SV, SA. UBS Securities España SV, SA is regulated by the Comisión Nacional del Mercado de Valores (CNMV). **Turkey:** Distributed by UBS AG, London Branch. No information in this document is provided for the purpose of offering, marketing and sale by any means of any capital market instruments and services in the Republic of Turkey. Therefore, this document may not be considered as an offer made or to be made to residents of the Republic of Turkey. UBS AG, London Branch is not licensed by the Turkish Capital Market Board under the provisions of the Capital Market Law (Law No. 6362). Accordingly, neither this document nor any other offering material related to the instruments/services may be utilized in connection with providing any capital market services to persons within the Republic of Turkey without the prior approval of the Capital Market Board. However, according to article 15 (d) (ii) of the Decree No. 32, there is no restriction on the purchase or sale of the securities abroad by residents of the Republic of Turkey. **Poland:** Distributed by UBS Europe SE (spółka z ograniczoną odpowiedzialnością) Oddział w Polsce regulated by the Polish Financial Supervision Authority. Where an analyst of UBS Europe SE (spółka z ograniczoną odpowiedzialnością) Oddział w Polsce has contributed to this document, the document is also deemed to have been prepared by UBS Europe SE (spółka z ograniczoną odpowiedzialnością) Oddział w Polsce. **Russia:** Prepared and distributed by UBS Bank (OOO). **Switzerland:** Distributed by UBS AG to persons who are institutional investors only. UBS AG is regulated by the Swiss Financial Market Supervisory Authority (FINMA). **Italy:** Prepared by UBS Europe SE and distributed by UBS Europe SE and UBS Europe SE, Italy Branch. Where an analyst of UBS Europe SE, Italy Branch has contributed to this document, the document is also deemed to have been prepared by UBS Europe SE, Italy Branch. **South Africa:** Distributed by UBS South Africa (Pty) Limited (Registration No. 1995/011140/07), an authorised user of the JSE and an authorised Financial Services Provider (FSP 7328). **Israel:** This material is distributed by UBS AG, London Branch. UBS Securities Israel Ltd is a licensed Investment Marketer that is supervised by the Israel Securities Authority (ISA). UBS AG, London Branch and its affiliates incorporated outside Israel are not licensed under the Israeli Advisory Law. UBS AG, London Branch is not covered by insurance as required from a licensee under the Israeli Advisory Law. UBS may engage among others in issuance of Financial Assets or in distribution of Financial Assets of other issuers for fees or other benefits. UBS AG, London Branch and its affiliates may prefer various Financial Assets to which they have or may have Affiliation (as such term is defined under the Israeli Advisory Law). Nothing in this Material should be considered as investment advice under the Israeli Advisory Law. This Material is being issued only to and/or is directed only at persons who are Eligible Clients within the meaning of the Israeli Advisory Law, and this material must not be relied on or acted upon by any other persons. **Saudi Arabia:** This document has been issued by UBS AG (and/or any of its subsidiaries, branches or affiliates), a public company limited by shares, incorporated in Switzerland with its registered offices at Aeschenvorstadt 1, CH-4051 Basel and Bahnhofstrasse 45, CH-8001 Zurich. This publication has been approved by UBS Saudi Arabia (a subsidiary of UBS AG), a Saudi closed joint stock company incorporated in the Kingdom of Saudi Arabia under commercial register number 1010257812 having its registered office at Tatweer Towers, P.O. Box 75724, Riyadh 11588, Kingdom of Saudi Arabia. UBS Saudi Arabia is authorized and regulated by the Capital Market Authority to conduct securities business under license number 08113-37. **UAE / Dubai:** The information distributed by UBS AG Dubai Branch is only intended for Professional Clients and/or Market Counterparties, as classified under the DFSA rulebook. No other person should act upon this material/communication. The information is not for further distribution within the United Arab Emirates. UBS AG Dubai Branch is regulated by the DFSA in the DIFC. UBS is not licensed to provide banking services in the UAE by the Central Bank of the UAE, nor is it licensed by the UAE Securities and Commodities Authority. **United States:** Distributed to US persons by either UBS Securities LLC or by UBS Financial Services Inc., subsidiaries of UBS AG; or by a group, subsidiary or affiliate of UBS AG that is not registered as a US broker-dealer (a "non-US affiliate") to major US institutional investors only. UBS Securities LLC or UBS Financial Services Inc. accepts responsibility for the content of a document prepared by another non-US affiliate when distributed to US persons by UBS Securities LLC or UBS Financial Services Inc. All transactions by a US person in the securities mentioned in this document must be effected through UBS Securities LLC or UBS Financial Services Inc., and not through a non-US affiliate. UBS Securities LLC is not acting as a municipal advisor to any municipal entity or obligated person within the meaning of Section 15B of the Securities Exchange Act (the "Municipal Advisor Rule"), and the opinions or views contained herein are not intended to be, and do not constitute, advice within the meaning of the Municipal Advisor Rule. **Canada:** Distributed by UBS Securities Canada Inc., a registered investment dealer in Canada and a Member-Canadian Investor Protection Fund, or by another affiliate of UBS AG that is registered to conduct business in Canada or is otherwise exempt from registration. **Mexico:** This report has been distributed and prepared by UBS Casa de Bolsa, S.A. de C.V., UBS Grupo Financiero, an entity that is part of UBS Grupo Financiero, S.A. de C.V. and is a subsidiary of UBS AG. This document is intended for distribution to institutional or sophisticated investors only. Research reports only reflect the views of the analysts responsible for the reports. Analysts do not receive any compensation from persons or entities different from UBS Casa de Bolsa, S.A. de C.V., UBS Grupo Financiero, or different from entities belonging to the same financial group or business group of such. For Spanish translations of applicable disclosures, please go to www.ubs.com/disclosures. **Brazil:** Except as otherwise specified herein, this material is prepared by UBS Brasil CCTVM S.A. to persons who are eligible investors residing in Brazil, which are considered to be Investidores Profissionais, as designated by the applicable regulation, mainly the CVM Instruction No. 539 from the 13th of November 2013 (determines the duty to verify the suitability of products, services and transactions with regards to the client's profile). **Hong Kong:** Distributed by UBS Securities Asia Limited and/or UBS AG, Hong Kong Branch, which is incorporated in Switzerland with limited liability. Please contact local licensed/registered representatives of UBS Securities Asia Limited and/or UBS AG, Hong Kong Branch in respect of any matters arising from, or in connection with, the analysis or document. **Singapore:** Distributed by UBS Securities Pte. Ltd. [MCI (P) 009/09/2018 and Co. Reg. No.: 198500648C] or UBS AG, Singapore Branch. Please contact UBS Securities Pte. Ltd., an exempt financial adviser under the Singapore Financial Advisers Act (Cap. 110); or UBS AG, Singapore Branch, an exempt financial adviser under the Singapore Financial Advisers Act (Cap. 110) and a wholesale bank licensed under the Singapore Banking Act (Cap. 19) regulated by the Monetary Authority of Singapore, in respect of any matters arising from, or in connection with, the analysis or document. The recipients of this document represent and warrant that they are accredited and institutional investors as defined in the Securities and Futures Act (Cap. 289). **Japan:** Distributed by UBS Securities Japan Co., Ltd. to professional investors (except as otherwise permitted). Where this document has been prepared by UBS Securities Japan Co., Ltd., UBS Securities Japan Co., Ltd. is the author, publisher and distributor of the document. Distributed by UBS AG, Tokyo Branch to Professional Investors (except as otherwise permitted) in relation to foreign exchange and other banking businesses when relevant. **Australia:** Clients of UBS AG: Distributed by UBS AG (ABN 47 088 129 613 and holder of Australian Financial Services License No. 231087). Clients of UBS Securities Australia Ltd: Distributed by UBS Securities Australia Ltd (ABN 62 008 586 481 and holder of Australian Financial Services License No. 231098). This Document contains general information and/or general advice only and does not constitute personal financial product advice. As such, the information in this document has been prepared without taking into account any investor's objectives, financial situation or needs, and investors should, before acting

on the Information, consider the appropriateness of the Information, having regard to their objectives, financial situation and needs. If the Information contained in this document relates to the acquisition, or potential acquisition of a particular financial product by a 'Retail' client as defined by section 761G of the Corporations Act 2001 where a Product Disclosure Statement would be required, the retail client should obtain and consider the Product Disclosure Statement relating to the product before making any decision about whether to acquire the product. The UBS Securities Australia Limited Financial Services Guide is available at: www.ubs.com/ecs-research-fsg.

New Zealand: Distributed by UBS New Zealand Ltd. UBS New Zealand Ltd is not a registered bank in New Zealand. You are being provided with this UBS publication or material because you have indicated to UBS that you are a "wholesale client" within the meaning of section 5C of the Financial Advisers Act 2008 of New Zealand (Permitted Client). This publication or material is not intended for clients who are not Permitted Clients (non-permitted Clients). If you are a non-permitted Client you must not rely on this publication or material. If despite this warning you nevertheless rely on this publication or material, you hereby (i) acknowledge that you may not rely on the content of this publication or material and that any recommendations or opinions in such this publication or material are not made or provided to you, and (ii) to the maximum extent permitted by law (a) indemnify UBS and its associates or related entities (and their respective Directors, officers, agents and Advisors) (each a 'Relevant Person') for any loss, damage, liability or claim any of them may incur or suffer as a result of, or in connection with, your unauthorised reliance on this publication or material and (b) waive any rights or remedies you may have against any Relevant Person for (or in respect of) any loss, damage, liability or claim you may incur or suffer as a result of, or in connection with, your unauthorised reliance on this publication or material. **Korea:** Distributed in Korea by UBS Securities Pte. Ltd., Seoul Branch. This document may have been edited or contributed to from time to time by affiliates of UBS Securities Pte. Ltd., Seoul Branch. This material is intended for professional/institutional clients only and not for distribution to any retail clients. **Malaysia:** This material is authorized to be distributed in Malaysia by UBS Securities Malaysia Sdn. Bhd (Capital Markets Services License No.: CMSL/A0063/2007). This material is intended for professional/institutional clients only and not for distribution to any retail clients. **India:** Distributed by UBS Securities India Private Ltd. (Corporate Identity Number U67120MH1996PTC097299) 2/F, 2 North Avenue, Maker Maxity, Bandra Kurla Complex, Bandra (East), Mumbai (India) 400051. Phone: +912261556000. It provides brokerage services bearing SEBI Registration Number: INZ000259830; merchant banking services bearing SEBI Registration Number: INM000010809 and Research Analyst services bearing SEBI Registration Number: INH000001204. UBS AG, its affiliates or subsidiaries may have debt holdings or positions in the subject Indian company/companies. Within the past 12 months, UBS AG, its affiliates or subsidiaries may have received compensation for non-investment banking securities-related services and/or non-securities services from the subject Indian company/companies. The subject company/companies may have been a client/clients of UBS AG, its affiliates or subsidiaries during the 12 months preceding the date of distribution of the research report with respect to investment banking and/or non-investment banking securities-related services and/or non-securities services. With regard to information on associates, please refer to the Annual Report at: http://www.ubs.com/global/en/about_ubs/investor_relations/annualreporting.html **Taiwan:** Distributed by UBS Securities Pte. Ltd., Taipei Branch which is regulated by the Taiwan Securities and Futures Bureau. This document contains general information and/or general advice only and does NOT constitute any "Recommendation" to clients for the covered companies or any companies mentioned in this document. **Indonesia:** This report is being distributed by PT UBS Sekuritas Indonesia and is delivered by its licensed employee(s), including marketing/sales person, to its client. PT UBS Sekuritas Indonesia, having its registered office at Wisma GKB, 22nd floor, JL. Jend. Sudirman, kav.28, Jakarta 10210, Indonesia, is a subsidiary company of UBS AG and licensed under Capital Market Law no. 8 year 1995, a holder of broker-dealer and underwriter licenses issued by the Capital Market and Financial Institution Supervisory Agency (now Otoritas Jasa Keuangan/OJK). PT UBS Sekuritas Indonesia is also a member of Indonesia Stock Exchange and supervised by Otoritas Jasa Keuangan (OJK). Neither this report nor any copy hereof may be distributed in Indonesia or to any Indonesian citizens except in compliance with applicable Indonesian capital market laws and regulations. This report is not an offer of securities in Indonesia and may not be distributed within the territory of the Republic of Indonesia or to Indonesian citizens in circumstance which constitutes an offering within the meaning of Indonesian capital market laws and regulations.

The disclosures contained in research documents produced by UBS AG, London Branch or UBS Europe SE shall be governed by and construed in accordance with English law.

UBS specifically prohibits the redistribution of this document in whole or in part without the written permission of UBS and in any event UBS accepts no liability whatsoever for any redistribution of this document or its contents or the actions of third parties in this respect. Images may depict objects or elements that are protected by third party copyright, trademarks and other intellectual property rights. © UBS 2020. The key symbol and UBS are among the registered and unregistered trademarks of UBS. All rights reserved.

Global Wealth Management Disclaimer

You receive this document in your capacity as a client of UBS Global Wealth Management. This publication has been distributed to you by UBS Switzerland AG (regulated by FINMA in Switzerland) or its affiliates ("UBS") with whom you have a banking relationship with. The full name of the distributing affiliate and its competent authority can be found in the country-specific disclaimer at the end of this document.

The date and time of the first dissemination of this publication is the same as the date and time of its publication.

Risk information:

You agree that you shall not copy, revise, amend, create a derivative work, provide to any third party, or in any way commercially exploit any UBS research, and that you shall not extract data from any research or estimates, without the prior written consent of UBS.

This document is for distribution only as may be permitted by law. It 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 or would subject UBS to any registration or licensing requirement within such jurisdiction.

This document is a general communication and is educational in nature; it is not an advertisement nor is it a solicitation or an offer to buy or sell any financial instruments or to participate in any particular trading strategy. Nothing in this document constitutes a representation that any investment strategy or recommendation is suitable or appropriate to an investor's individual circumstances or otherwise constitutes a personal recommendation. By providing this document, none of UBS or its representatives has any responsibility or authority to provide or have provided investment advice in a fiduciary capacity or otherwise. Investments involve risks, and investors should exercise prudence and their own judgment in making their investment decisions. None of UBS or its representatives is suggesting that the recipient or any other person take a specific course of action or any action at all. By receiving this document, the recipient acknowledges and agrees with the intended purpose described above and further disclaims any expectation or belief that the information constitutes investment advice to the recipient or otherwise purports to meet the investment objectives of the recipient. The financial instruments described in the document may not be eligible for sale in all jurisdictions or to certain categories of investors.

Options, derivative products and futures are not suitable for all investors, and trading in these instruments is considered risky. Mortgage and asset-backed securities may involve a high degree of risk and may be highly volatile in response to fluctuations in interest rates or other market conditions. Foreign currency rates of exchange may adversely affect the value, price or income of any security or related instrument referred to in the document. For investment advice, trade execution or other enquiries, clients should contact their local sales representative.

The value of any investment or income may go down as well as up, and investors may not get back the full (or any) amount invested. Past performance is not necessarily a guide to future performance. Neither UBS nor any of its directors, employees or agents accepts any liability for any loss (including investment loss) or damage arising out of the use of all or any of the information (as defined below).

Prior to making any investment or financial decisions, any recipient of this document or the information should take steps to understand the risk and return of the investment and seek individualized advice from his or her personal financial, legal, tax and other professional advisors that takes into account all the particular facts and circumstances of his or her investment objectives.

Any prices stated in this document are for information purposes only and do not represent valuations for individual securities or other financial instruments. There is no representation that any transaction can or could have been effected at those prices, and any prices do not necessarily reflect UBS's internal books and records or theoretical model-based valuations and may be based on certain assumptions. Different assumptions by UBS or any other source may yield substantially different results.

No representation or warranty, either expressed or implied, is provided in relation to the accuracy, completeness or reliability of the information contained in any materials to which this document relates (the "Information"), except with respect to Information concerning UBS. The Information is not intended to be a complete statement or summary of the securities, markets or developments referred to in the document. UBS does not undertake to update or keep current the Information. Any opinions expressed in this document may change without notice and may differ or be contrary to opinions expressed by other business areas or groups, personnel or other representative of UBS. Any statements contained in this report attributed to a third party represent UBS's interpretation of the data, information and/or opinions provided by that third party either publicly or through a subscription service, and such use and interpretation have not been reviewed by the third party. In no circumstances may this document or any of the Information (including any forecast, value, index or other calculated amount ("Values")) be used for any of the following purposes:

- (i) valuation or accounting purposes;
- (ii) to determine the amounts due or payable, the price or the value of any financial instrument or financial contract; or
- (iii) to measure the performance of any financial instrument including, without limitation, for the purpose of tracking the return or performance of any Value or of defining the asset allocation of portfolio or of computing performance fees.

By receiving this document and the Information you will be deemed to represent and warrant to UBS that you will not use this document or any of the Information for any of the above purposes or otherwise rely upon this document or any of the Information.

UBS has policies and procedures, which include, without limitation, independence policies and permanent information barriers, that are intended, and upon which UBS relies, to manage potential conflicts of interest and control the flow of information within divisions of UBS (including between Global Wealth Management and Research) and among its subsidiaries, branches and affiliates. For further information on the ways in which UBS manages conflicts and maintains independence of its research products, historical performance information and certain additional disclosures concerning UBS research recommendations, please visit www.ubs.com/disclosures.

Research will initiate, update and cease coverage solely at the discretion of research management, which will also have sole discretion on the timing and frequency of any published research product. The analysis contained in this document is based on numerous assumptions. Different assumptions could result in materially different results.

The analyst(s) responsible for the preparation of this document may interact with trading desk personnel, sales personnel and other parties for the purpose of gathering, applying and interpreting market information. UBS relies on information barriers to control the flow of information contained in one or more areas within UBS into other areas, units, groups or affiliates of UBS. The compensation of the analyst who prepared this document is determined exclusively by research management and senior management (not including investment banking). Analyst compensation is not based on investment banking revenues; however, compensation may relate to the revenues of UBS and/or its divisions as a whole, of which investment banking, sales and trading are a part, and UBS's subsidiaries, branches and affiliates as a whole.

For financial instruments admitted to trading on an EU regulated market: UBS AG, its affiliates or subsidiaries (excluding UBS Securities LLC) acts as a market maker or liquidity provider (in accordance with the interpretation of these terms in the UK) in the financial instruments of the issuer save that where the activity of liquidity provider is carried out in accordance with the definition given to it by the laws and regulations of any other EU jurisdictions, such information is separately disclosed in this document. For financial instruments admitted to trading on a non-EU regulated market: UBS may act as a market maker save that where this activity is carried out in the US in accordance with the definition given to it by the relevant laws and regulations, such activity will be specifically disclosed in this document. UBS may have issued a warrant the value of which is based on one or more of the financial instruments referred to in the document. UBS and its affiliates and employees may have long or short positions, trade as principal and buy and sell in instruments or derivatives identified herein; such transactions or positions may be inconsistent with the opinions expressed in this document.

Within the past 12 months UBS Switzerland AG, its affiliates or subsidiaries may have received or provided investment services and activities or ancillary services as per MiFID II which may have given rise to a payment or promise of a payment in relation to these services from or to this company.

If you require detailed information on disclosures of interest or conflict of interest as required by Market Abuse Regulation please contact the mailbox MAR_disclosures_twopager@ubs.com. Please note that e-mail communication is unsecured.

External Asset Managers / External Financial Consultants: In case this research or publication is provided to an External Asset Manager or an External Financial Consultant, UBS expressly prohibits that it is redistributed by the External Asset Manager or the External Financial Consultant and is made available to their clients and/or third parties.

Distributed to US persons by UBS Financial Services Inc. or UBS Securities LLC, subsidiaries of UBS AG. UBS Switzerland AG, UBS Europe SE, UBS Bank, S.A., UBS Brasil Administradora de Valores Mobiliarios Ltda, UBS Asesores Mexico, S.A. de C.V., UBS Securities Japan Co., Ltd, UBS Wealth Management Israel Ltd and UBS Menkul Degerler AS are affiliates of UBS AG. UBS Financial Services Incorporated of Puerto Rico is a subsidiary of UBS Financial Services Inc. **UBS Financial Services Inc. accepts responsibility for the content of a report prepared by a non-US affiliate when it distributes reports to US persons. All transactions by a US person in the securities mentioned in this report should be effected through a US-registered broker dealer affiliated with UBS, and not through a non-US affiliate. The contents of this report have not been and will not be approved by any securities or investment authority in the United States or elsewhere. UBS Financial Services Inc. is not acting as a municipal advisor to any municipal entity or obligated person within the meaning of Section 15B of the Securities Exchange Act (the "Municipal Advisor Rule") and the opinions or views contained herein are not intended to be, and do not constitute, advice within the meaning of the Municipal Advisor Rule.**

Austria: This publication is not intended to constitute a public offer under Austrian law. It is distributed only for information purposes to clients of UBS Europe SE, Niederlassung Österreich, with place of business at Wächtergasse 1, A-1010 Wien. UBS Europe SE, Niederlassung Österreich is subject to the joint supervision of the European Central Bank ("ECB"), the German Central Bank (Deutsche Bundesbank), the German Federal Financial Services Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht), as well as of the Austrian Financial Market Authority (Finanzmarktaufsicht, FMA), to which this publication has not been submitted for approval. UBS Europe SE is a credit institution constituted under German law in the form of a Societas Europaea, duly authorized by the ECB. **Bahrain:** UBS is a Swiss bank not licensed, supervised or regulated in Bahrain by the Central Bank of Bahrain and does not undertake banking or investment business activities in Bahrain. Therefore, clients have no protection under local banking and investment services laws and regulations. **Canada:** The information contained herein is not, and under no circumstances is to be construed as, a prospectus, an advertisement, a public offering, an offer to sell securities described herein, solicitation of an offer to buy securities described herein, in Canada or any province or territory thereof. Any offer or sale of the securities described herein in Canada will be made only under an exemption from the requirements to file a prospectus with the relevant Canadian securities regulators and only by a dealer properly registered under applicable securities laws or, alternatively, pursuant to an exemption from the dealer registration requirement in the relevant province or territory of Canada in which such offer or sale is made. Under no circumstances is the information contained herein to be construed as investment advice in any province or territory of Canada and is not tailored to the needs of the recipient. To the extent that the information contained herein references securities of an issuer incorporated, formed or created under the laws of Canada or a province or territory of Canada, any trades in such securities must be conducted through a dealer registered in Canada or, alternatively, pursuant to a dealer registration exemption. No securities commission or similar regulatory authority in Canada has reviewed or in any way passed upon these materials, the information contained herein or the merits of the securities described herein and any representation to the contrary is an offence. In Canada, this publication is distributed by UBS Investment Management Canada Inc. **China:** This research report is neither intended to be distributed to PRC investors nor to provide securities investment consultancy services within the territory of PRC. **Czech Republic:** UBS is not a licensed bank in the Czech Republic and thus is not allowed to provide regulated banking or investment services in the Czech Republic. Please notify UBS if you do not wish to receive any further correspondence. **Denmark:** This publication is not intended to constitute a public offer under Danish law. It is distributed only for information purposes to clients of UBS Europe SE, Denmark Branch, filial af UBS Europe SE, with place of business at Sankt Annae Plads 13, 1250 Copenhagen, Denmark, registered with the Danish Commerce and Companies Agency, under No. 38 17 24 33. UBS Europe SE, Denmark Branch, filial af UBS Europe SE is subject to the joint supervision of the European Central Bank ("ECB"), the German Central Bank (Deutsche Bundesbank), the German Federal Financial Services Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht), as well as of the Danish Financial Supervisory Authority (Finanstilsynet), to which this publication has not been submitted for approval. UBS Europe SE is a credit institution constituted under German law in the form of a Societas Europaea, duly authorized by the ECB. **Egypt:** Securities or other investment products are not being offered or sold by UBS to the public in Egypt and they have not been and will not be registered with the Egyptian Financial Supervisory Authority. **France:** This publication is distributed by UBS (France) S.A., French "société anonyme" with share capital of € 132.975.556, 69, boulevard Haussmann F-75008 Paris, R.C.S. Paris B 421 255 670, to its clients and prospects. UBS (France) S.A. is a provider of investment services duly authorized according to the terms of the "Code Monétaire et Financier", regulated by French banking and financial authorities as the "Autorité de Contrôle Prudentiel et de Résolution." **Germany:** This publication is not intended to constitute a public offer under German law. It is distributed only for information purposes to clients of UBS Europe SE, Germany, with place of business at Bockenheimer Landstrasse 2-4, 60306 Frankfurt am Main. UBS Europe SE is a credit institution constituted under German law in the form of a Societas Europaea, duly authorized by the European Central Bank ("ECB"), and supervised by the ECB, the German Central Bank (Deutsche Bundesbank) and the German Federal Financial Services Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht), to which this publication has not been submitted for approval. **Greece:** UBS Switzerland AG and its affiliates (UBS) are not licensed as a bank or financial institution under Greek legislation and do not provide banking and financial services in Greece. Consequently, UBS provides such services from branches outside of Greece, only. This document may not be considered as a public offering made or to be made to residents of Greece. **Hong Kong:** This publication is distributed to clients of UBS AG Hong Kong Branch by UBS AG Hong Kong Branch, a licensed bank under the Hong Kong Banking Ordinance and a registered institution under the Securities and Futures Ordinance. UBS AG Hong Kong Branch is incorporated in Switzerland with limited liability. **Indonesia, Malaysia, Philippines, Thailand:** This material was provided to you as a result of a request received by UBS from you and/or persons entitled to make the request on your behalf. Should you have received the material erroneously, UBS asks that you kindly destroy/delete it and inform UBS immediately. Any and all advice provided and/or trades executed by UBS pursuant to the material will only have been provided upon your specific request or executed upon your specific instructions, as the case may be, and may be deemed as such by UBS and you. The

material may not have been reviewed, approved, disapproved or endorsed by any financial or regulatory authority in your jurisdiction. The relevant investments will be subject to restrictions and obligations on transfer as set forth in the material, and by receiving the material you undertake to comply fully with such restrictions and obligations. You should carefully study and ensure that you understand and exercise due care and discretion in considering your investment objective, risk appetite and personal circumstances against the risk of the investment. You are advised to seek independent professional advice in case of doubt. **India:** UBS Securities India Private Ltd. (Corporate Identity Number U67120MH1996PTC097299) 2/F, 2 North Avenue, Maker Maxity, Bandra Kurla Complex, Bandra (East), Mumbai (India) 400051. Phone: +912261556000. It provides brokerage services bearing SEBI Registration Number INZ000259830; merchant banking services bearing SEBI Registration Number: INM000010809 and Research Analyst services bearing SEBI Registration Number: INH000001204. UBS AG, its affiliates or subsidiaries may have debt holdings or positions in the subject Indian company/companies. Within the past 12 months, UBS AG, its affiliates or subsidiaries may have received compensation for non-investment banking securities-related services and/or non-securities services from the subject Indian company/companies. The subject company/companies may have been a client/clients of UBS AG, its affiliates or subsidiaries during the 12 months preceding the date of distribution of the research report with respect to investment banking and/or non-investment banking securities-related services and/or non-securities services. With regard to information on associates, please refer to the Annual Report at: http://www.ubs.com/global/en/about_ubs/investor_relations/annualreporting.html. **Israel:** UBS is a premier global financial firm offering wealth management, asset management and investment banking services from its headquarters in Switzerland and its operations in over 50 countries worldwide to individual, corporate and institutional investors. In Israel, UBS Switzerland AG is registered as Foreign Dealer in cooperation with UBS Wealth Management Israel Ltd., a wholly owned UBS subsidiary. UBS Wealth Management Israel Ltd. is a Portfolio Manager licensee which engages also in Investment Marketing and is regulated by the Israel Securities Authority. This publication is intended for information only and is not intended as an offer to buy or solicitation of an offer. Furthermore, this publication is not intended as an investment advice and/or investment marketing and is not replacing any investment advice and/or investment marketing provided by the relevant licensee which is adjusted to each person needs. No action has been, or will be, taken in Israel that would permit an offering of the product(s) mentioned in this document or a distribution of this document to the public in Israel. In particular, this document has not been reviewed or approved by the Israeli Securities Authority. The product(s) mentioned in this document is/are being offered to a limited number of sophisticated investors who qualify as one of the investors listed in the first supplement to the Israeli Securities Law, 5728-1968. This document may not be reproduced or used for any other purpose, nor be furnished to any other person other than those to whom copies have been sent. Anyone who purchases the product(s) mentioned herein shall do so for its own benefit and for its own account and not with the aim or intention of distributing or offering the product(s) to other parties. Anyone who purchases the product(s) shall do so in accordance with its own understanding and discretion and after it has received any relevant financial, legal, business, tax or other advice or opinion required by it in connection with such purchase(s). The word "advice" and/or any of its derivatives shall be read and construed in conjunction with the definition of the term "investment marketing" as defined under the Israeli Regulation of Investment Advice, Investment Marketing and Portfolio Management Law, 1995. **Italy:** This publication is not intended to constitute a public offer under Italian law. It is distributed only for information purposes to clients of UBS Europe SE, Succursale Italia, with place of business at Via del Vecchio Politecnico, 3-20121 Milano. UBS Europe SE, Succursale Italia is subject to the joint supervision of the European Central Bank ("ECB"), the German Central Bank (Deutsche Bundesbank), the German Federal Financial Services Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht), as well as of the Bank of Italy (Banca d'Italia) and the Italian Financial Markets Supervisory Authority (CONSOB - Commissione Nazionale per le Società e la Borsa), to which this publication has not been submitted for approval. UBS Europe SE is a credit institution constituted under German law in the form of a Societas Europaea, duly authorized by the ECB. **Jersey:** UBS AG, Jersey Branch, is regulated and authorized by the Jersey Financial Services Commission for the conduct of banking, funds and investment business. Where services are provided from outside Jersey, they will not be covered by the Jersey regulatory regime. UBS AG, Jersey Branch is a branch of UBS AG a public company limited by shares, incorporated in Switzerland whose registered offices are at Aeschenvorstadt 1, CH-4051 Basel and Bahnhofstrasse 45, CH 8001 Zurich. UBS AG, Jersey Branch's principal place business is 1, IFC Jersey, St Helier, Jersey, JE2 3BX. **Luxembourg:** This publication is not intended to constitute a public offer under Luxembourg law. It is distributed only for information purposes to clients of UBS Europe SE, Luxembourg Branch, with place of business at 33A, Avenue J. F. Kennedy, L-1855 Luxembourg. UBS Europe SE, Luxembourg Branch is subject to the joint supervision of the European Central Bank ("ECB"), the German Central bank (Deutsche Bundesbank), the German Federal Financial Services Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht), as well as of the Luxembourg supervisory authority (Commission de Surveillance du Secteur Financier), to which this publication has not been submitted for approval. UBS Europe SE is a credit institution constituted under German law in the form of a Societas Europaea, duly authorized by the ECB. **Mexico:** This information is distributed by UBS Asesores México, S.A. de C.V. ("UBS Asesores"), an affiliate of UBS Switzerland AG, incorporated as a non-independent investment advisor under the Securities Market Law due to the relation with a Foreign Bank. UBS Asesores is a regulated entity and it is subject to the supervision of the Mexican Banking and Securities Commission ("CNBV"), which exclusively regulates UBS Asesores regarding the rendering of portfolio management, as well as on securities investment advisory services, analysis and issuance of individual investment recommendations, so that the CNBV has no surveillance faculties nor may have over any other service provided by UBS Asesores. UBS Asesores is registered before CNBV under Registry number 30060. You are being provided with this UBS publication or material because you have indicated to UBS Asesores that you are a Sophisticated Qualified Investor located in Mexico. The compensation of the analyst(s) who prepared this report is determined exclusively by research management and senior management of any entity of UBS Group to which such analyst(s) render services. **Nigeria:** UBS Switzerland AG and its affiliates (UBS) are not licensed, supervised or regulated in Nigeria by the Central Bank of Nigeria or the Nigerian Securities and Exchange Commission (SEC) and do not undertake banking or investment business activities in Nigeria. The investment products mentioned in this material are not being offered or sold by UBS to the public in Nigeria and they have not been submitted for approval nor registered with the Nigerian SEC. If you are interested in products of this nature, please let us know and we will direct you to someone who can advise you. The investment products mentioned in this material are not being directed to, and are not being made available for subscription by any persons within Nigeria other than the selected investors to whom the offer materials have been addressed as a private sale or domestic concern within the exemption and meaning of Section 69(2) of the Investments and Securities Act, 2007 (ISA). **Portugal:** UBS Switzerland AG is not licensed to conduct banking and financial activities in Portugal nor is UBS Switzerland AG supervised by the Portuguese regulators (Bank of Portugal "Banco de Portugal" and Portuguese Securities Exchange Commission "Comissão do Mercado de Valores Mobiliários"). **Russia:** This document or information contained therein is for information purposes only and constitute neither a public nor a private offering, is not an invitation to make offers, to sell, exchange or otherwise transfer any financial instruments in the Russian Federation to or for the benefit of any Russian person or entity and does not constitute an advertisement or offering of securities in the Russian Federation within the meaning of Russian securities laws. **Singapore:** This material was provided to you as a result of a request received by UBS from you and/or persons entitled to make the request on your behalf. Should you have received the material erroneously, UBS asks that you kindly destroy/delete it and inform UBS immediately. Clients of UBS AG Singapore branch are asked to please contact UBS AG Singapore branch, an exempt financial adviser under the Singapore Financial Advisers Act (Cap. 110) and a wholesale bank licensed under the Singapore Banking Act (Cap. 19) regulated by the Monetary Authority of Singapore, in respect of any matters arising from, or in connection with, the analysis or report. **Spain:** This publication is not intended to constitute a public offer under Spanish law. It is distributed only for information purposes to clients of UBS Europe SE, Sucursal en España, with place of business at Calle María de Molina 4, C.P. 28006, Madrid. UBS Europe SE, Sucursal en España is subject to the joint supervision of the European Central Bank ("ECB"), the German Central bank (Deutsche Bundesbank), the German Federal Financial Services Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht), as well as of the Spanish supervisory authority (Banco de España), to which this publication has not been submitted for approval. Additionally it is authorized to provide investment services on securities and financial instruments, regarding which it is supervised by the Comisión Nacional del Mercado de Valores as well. UBS Europe SE, Sucursal en España is a branch of UBS Europe SE, a credit institution constituted under German law in the form of a Societas Europaea, duly authorized by the ECB. **Sweden:** This publication is not intended to constitute a public offer under Swedish law. It is distributed only for information purposes to clients of UBS Europe SE, Sweden Bankfilial, with place of business at Regeringsgatan 38, 11153 Stockholm, Sweden, registered with the Swedish Companies Registration Office under Reg. No 516406-1011. UBS Europe SE, Sweden Bankfilial is subject to the joint supervision of the European Central Bank ("ECB"), the German Central bank (Deutsche Bundesbank), the German Federal Financial Services Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht), as well as of the Swedish supervisory authority (Finansinspektionen), to which this publication has not been submitted for approval. UBS Europe SE is a credit institution constituted under German law in the form of a Societas Europaea, duly authorized by the ECB. **Taiwan:** This material is provided by UBS AG, Taipei Branch in accordance with laws of Taiwan, in agreement with or at the request of clients/prospects. **Turkey:** No information in this document is provided for the purpose of offering, marketing and sale by any means of any capital market instruments and services in the Republic of Turkey. Therefore, this document may not be considered as an offer made or to be made to residents of the Republic of Turkey in the Republic of Turkey. UBS Switzerland AG is not licensed by the Turkish Capital Market Board (the CMB) under the provisions of the Capital Market Law (Law No. 6362). Accordingly neither this document nor any other offering material related to the instruments/services may be utilized in connection with providing any capital market services to persons within the Republic of Turkey without the prior approval of the CMB. However, according to article 15 (d) (ii) of the Decree No. 32 there is no restriction on the purchase or sale of the instruments by residents of the Republic of Turkey. **UAE:** UBS is not licensed in the UAE by the Central Bank of UAE or by the Securities & Commodities Authority. The UBS AG Dubai Branch is licensed in the DIFC by the Dubai Financial Services Authority as an authorised firm. **United Kingdom:** This document is issued by UBS Wealth Management, a division of UBS AG which is authorised and regulated by the Financial Market Supervisory Authority in Switzerland. In the United Kingdom, UBS AG 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 regulation by the Prudential Regulation Authority are available from us on request. A member of the London Stock Exchange. This publication is distributed to retail clients of UBS Wealth Management. **Ukraine:** UBS is not registered and licensed as a bank/financial institution under Ukrainian legislation and does not provide banking and other financial services in Ukraine. UBS has not made and will not make any offer of the mentioned products to the public in Ukraine. No action has been taken to authorize an offer of the mentioned products to the public in Ukraine and the distribution of this document shall not constitute financial services for the purposes of the Law of Ukraine "On Financial Services and State Regulation of Financial Services Markets" dated 12 July 2001. Accordingly, nothing in this document or any other document, information or communication related to the mentioned products

shall be interpreted as containing an offer or invitation to offer, or solicitation of securities in the territory of Ukraine. Electronic communication must not be considered as an offer to enter into an electronic agreement or electronic instrument within the meaning of the Law of Ukraine "On Electronic Commerce" dated 3 September 2015.

This document is strictly for private use by its holder and may not be passed on to third parties or otherwise publicly distributed.

© UBS 2020. The key symbol and UBS are among the registered and unregistered trademarks of UBS. All rights reserved.

