

Chinasoft (354 HK)

Benefiting from localization trend with KaihongOS

Chinasoft hosted an investor call on 11 Jan to discuss the latest updates regarding KaihongOS development. We believe the key takeaways is that Chinasoft is benefiting from the localization trend in a broader sense, from KaihongOS, Kunpeng (ARM) cloud migration, ERP application software and IoT products. After a year of workforce restructuring, we expect Chinasoft revenue growth to accelerate in FY23E as enterprise digitalization and IT spending will pick up with loosened COVID restrictions in China. Maintain BUY with new target price of HK\$9.14.

■ **KaihongOS for IoT based on OpenHarmony.** Chinasoft cooperated with Shenzhen Kai Hong Digital Industry Development (SZ Kai Hong) to develop Kaihong OS (R&D on middleware/ kits/ domestic chip compatibility, etc.) based on OpenHarmony and IoT devices management platform. SZ Kai Hong is a JV set up by BJ Chinasoft and Shenzhen Capital and that Huawei indirectly owns 20% stake. SZ Kai Hong strategically focuses on manufacturing, transportation, infrastructure, healthcare, finance and education industries which have strong demand in digitalization. Chinasoft's revenue related to KaihongOS includes IoT products sales and IT outsourcing services. We expect such revenue to be RMB2.5bn in FY22E, accounting for 12% of revenue.

■ **New Businesses: benefiting from localization demand in a broader sense.** Instead of involving in Windows PC system replacement, Chinasoft New Businesses segment growth is driven by localization trend in a broader sense including 1) KaihongOS R&D, 2) Huawei Cloud migration based on Kunpeng (ARM) chipsets, 3) application software such as Huawei ERP project and 4) IoT devices R&D based on Kaihong OS. We expect Chinasoft New Businesses revenue to grow 34%/25% YoY in FY22-23E.

■ **Traditional IT Outsourcing: steady growth.** We expect Chinasoft to maintain a steady growth in traditional IT outsourcing business with +5%/13% YoY in FY22-23E. The slowdown in FY22 was due to the COVID resurgence in 2H22 and that telecom and internet customers scaled back in IT spending. We expect demand to pick up gradually in FY23E as macro environment improves.

■ **Maintain BUY.** We lowered FY22 net profit by 6% but raised FY23-net profit by 3% as we expect enterprise digitalization and hence IT spending to reaccelerate with China COVID policy change. Maintain BUY with new target price of HK\$9.14 (prior HK\$7.79) as we roll forward to 15x fully diluted FY24E P/E (in-line with 3-year mean).

Earnings Summary

(YE 31 Dec)	FY20A	FY21A	FY22E	FY23E	FY24E
Revenue (RMB mn)	14,101	18,398	20,865	24,436	27,773
YoY growth (%)	17.1	30.5	13.4	17.1	13.7
Net profit (RMB mn)	954.9	1,136.9	1,171.5	1,435.1	1,674.1
Diluted EPS (RMB)	0.32	0.36	0.38	0.46	0.54
YoY growth (%)	12.6	12.9	5.3	22.5	16.7
Consensus EPS (RMB)	0.32	0.36	0.42	0.50	0.61
Diluted P/E (x)	14.9	26.1	16.3	13.3	11.4
EV/Sales (x)	1.2	0.8	0.6	0.5	0.4
Yield (%)	0.5	0.3	0.5	0.6	0.7
ROE (%)	12.5	11.2	9.7	10.8	11.4
Net gearing (%)	(22.8)	(31.2)	(43.6)	(42.4)	(44.4)

Source: Company data, Bloomberg, CMBIGM estimates

BUY (Maintain)

Target Price	HK\$9.14
(Previous TP)	HK\$7.79
Up/Downside	+28.3%
Current Price	HK\$7.12

China Software & IT Services

Marley NGAN
 (852) 3916 3719
 marleyngan@cmbi.com.hk

Bowen LI
 (852) 3761 8957
 libowen@cmbi.com.hk

Stock Data

Mkt Cap (HK\$ mn)	21,552.3
Avg 3 mths t/o (HK\$ mn)	6.3
52w High/Low (HK\$)	8.90/4.83
Total Issued Shares (mn)	3027.0

Source: FactSet

Shareholding Structure

Chen Yuhong- Chairman	10.8%
UBS Group AG	10.0%

Source: HKEx

Share Performance

	Absolute	Relative
1-mth	3.0%	-4.3%
3-mth	44.1%	13.2%
6-mth	-6.8%	-8.2%

Source: FactSet

12-month Price Performance



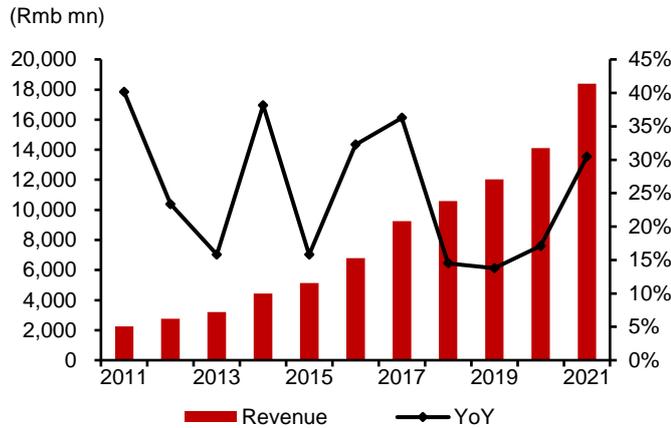
Source: FactSet

Related Reports

- Chinasoft (354 HK) – "FY1H22 beat, workforce restructuring in progress" – 30 Aug 2022 ([link](#))
- Chinasoft (354 HK) – "Shenzhen to provide subsidies in building Harmony/ Euler ecosystem" – 15 July 2022 ([link](#))

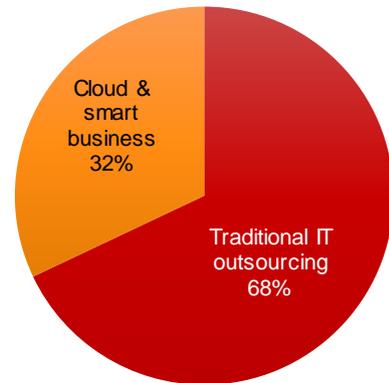
Focus Charts

Figure 1: Revenue and growth



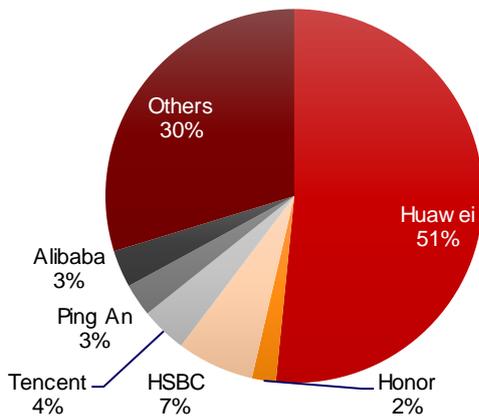
Source: Company data, CMBIGM estimates

Figure 2: Revenue mix (FY1H22)



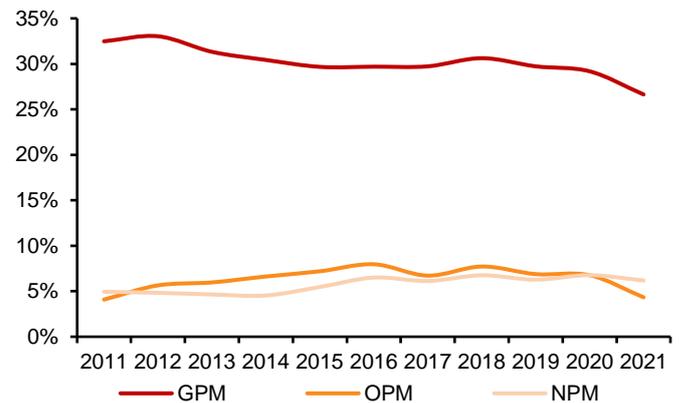
Source: Company data, CMBIGM estimates

Figure 3: Revenue mix by customer (FY1H22)



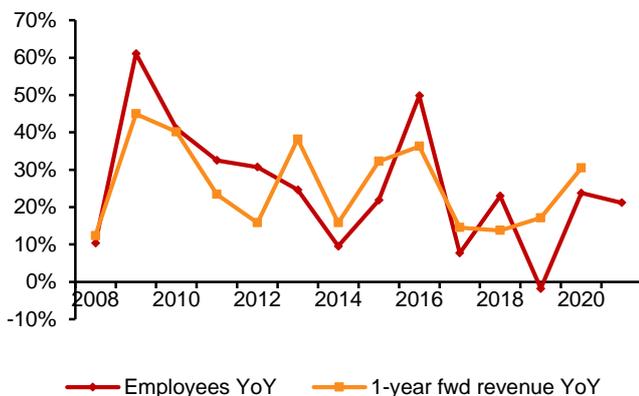
Source: Company data, CMBIGM estimates

Figure 4: Margins



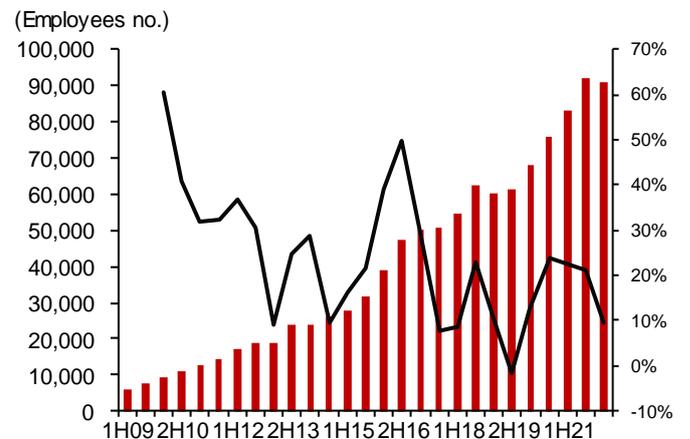
Source: Company data, CMBIGM

Figure 5: Forward revenue and employees growth



Source: Company data, CMBIGM

Figure 6: Chinasoft employee trend



Source: Company data, CMBIGM

IoT use cases based on KaihongOS

Figure 7: Applications in smart infrastructure



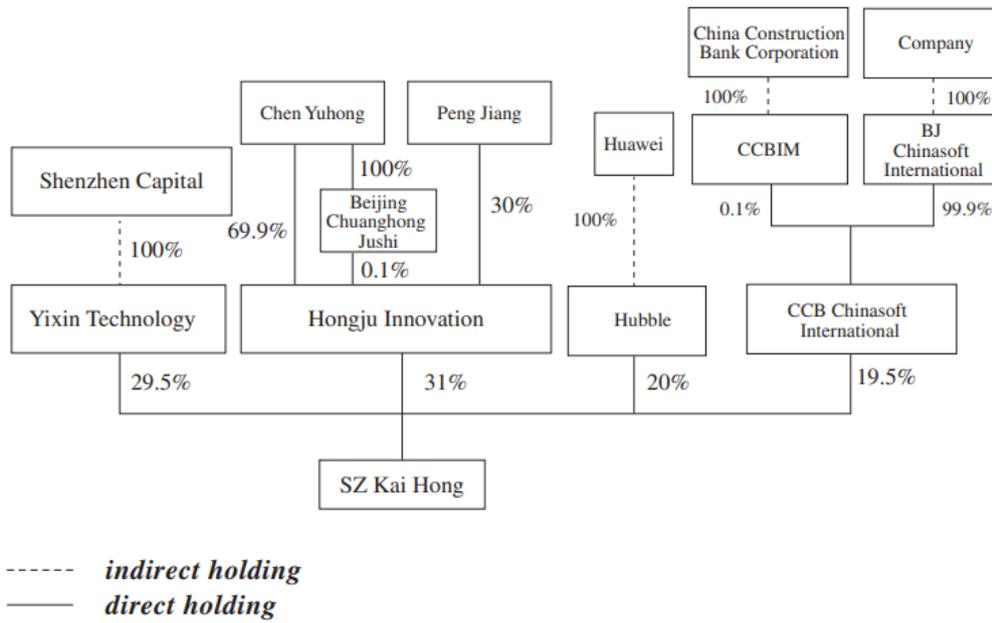
Source: Kaihong, CMBIGM

Figure 8: IoT devices management platform



Source: Kaihong, CMBIGM

Figure 9: Shareholding structure of SZ Kai Hong



Source: Company data, CMBIGM

Earnings revision

Figure 10: Earnings revision

RMB mn	2022E			2023E			2024E		
	New	Old	%Diff	New	Old	%Diff	New	Old	%Diff
Sales	20,865	22,105	-6%	24,436	25,576	-4%	27,773	30,145	-8%
Gross profit	5,062	5,357	-6%	5,760	5,916	-3%	6,688	6,990	-4%
OP Profit	897	944	-5%	1,175	1,117	5%	1,372	1,333	3%
PBT	1,248	1,323	-6%	1,557	1,510	3%	1,812	1,806	0%
Net profit	1,171	1,243	-6%	1,435	1,392	3%	1,674	1,668	0%
EPS (RMB)	0.38	0.40	-4%	0.46	0.44	5%	0.54	0.53	2%
Margins									
GM	24.3%	24.2%	3 bps	23.6%	23.1%	44 bps	24.1%	23.2%	89 bps
OPM	4.3%	4.3%	3 bps	4.8%	4.4%	44 bps	4.9%	4.4%	52 bps
PBT margin	6.0%	6.0%	-1 bps	6.4%	5.9%	47 bps	6.5%	6.0%	54 bps
Net margin	5.6%	5.6%	-1 bps	5.9%	5.4%	43 bps	6.0%	5.5%	49 bps

Source: Company data, CMBIGM estimates

Figure 11: CMBI estimates vs consensus

RMB mn	2022E			2023E			2024E		
	CMBI	Street	Diff	CMBI	Street	Diff	CMBI	Street	Diff
Sales	20,865	22,535	-7%	24,436	27,317	-11%	27,773	32,387	-14%
Gross profit	5,062	5,683	-11%	5,760	6,945	-17%	6,688	8,328	-20%
OP Profit	897	1,206	-26%	1,175	1,538	-24%	1,372	1,917	-28%
PBT	1,248	1,378	-9%	1,557	1,704	-9%	1,812	2,084	-13%
Net profit	1,171	1,290	-9%	1,435	1,566	-8%	1,674	1,865	-10%
EPS (RMB)	0.38	0.41	-8%	0.46	0.51	-9%	0.54	0.61	-11%
Margins									
GM	24.3%	25.2%	-96 bps	23.6%	25.4%	-185 bps	24.1%	25.7%	-163 bps
OPM	4.3%	5.4%	-106 bps	4.8%	5.6%	-82 bps	4.9%	5.9%	-98 bps
PBT margin	6.0%	6.1%	-13 bps	6.4%	6.2%	13 bps	6.5%	6.4%	9 bps
Net margin	5.6%	5.7%	-11 bps	5.9%	5.7%	14 bps	6.0%	5.8%	27 bps

Source: Company data, CMBIGM estimates

Operating model

Figure 12: Operating model

RMB mn	2020	2021	2022E	2023E	2024E
Revenues	14,101	18,398	20,865	24,436	27,773
Cost of sales	(9,983)	(13,494)	(15,804)	(18,675)	(21,085)
Gross Profit	4,118	4,904	5,062	5,760	6,688
<i>Gross margin</i>	<i>29.2%</i>	<i>26.7%</i>	<i>24.3%</i>	<i>23.6%</i>	<i>24.1%</i>
R&D	(930)	(1,249)	(1,347)	(1,659)	(1,855)
SG&A	(2,031)	(2,699)	(2,889)	(3,311)	(3,791)
Operating Income	952	796	897	1,175	1,372
<i>Operating margin</i>	<i>6.7%</i>	<i>4.3%</i>	<i>4.3%</i>	<i>4.8%</i>	<i>4.9%</i>
Non-Operating Income	83	456	351	382	440
Profit Before Tax	1,035	1,252	1,248	1,557	1,812
Income tax (expense) gain	(87)	(115)	(78)	(123)	(140)
Minorities	(7)	(0)	(2)	(1)	(2)
Net Income to Shareholders	955	1,137	1,171	1,435	1,674
<i>Net margin</i>	<i>6.8%</i>	<i>6.2%</i>	<i>5.6%</i>	<i>5.9%</i>	<i>6.0%</i>
EPS (RMB)	0.33	0.37	0.38	0.46	0.54
Fully diluted EPS (RMB)	0.32	0.36	0.38	0.46	0.54
<u>Revenue breakdown</u>					
IT outsourcing	10,830	13,063	13,716	15,499	17,049
Emerging cloud business	3,271	5,335	7,149	8,937	10,724
Huawei	8,030	9,880	9,979	10,977	12,404
HSBC	830	1,180	1,357	1,493	1,642
Tencent	500	706	720	792	951
Alibaba	400	590	602	662	861
Ping An	450	550	605	666	732
Others	3,891	5,492	7,603	9,847	11,184
<u>Growth YoY</u>					
Revenues	17%	30%	13%	17%	14%
Gross profit	15%	19%	3%	14%	16%
Operating Income	15%	-16%	13%	31%	17%
EPS	7%	13%	2%	23%	17%

Source: Company data, CMBIGM estimates

Figure 13: Semi-annual operating model

RMB mn	1H20	2H20	1H21	2H21	1H22	2H22E	1H23E	2H23E
Revenues	6,059	8,042	8,341	10,057	10,025	10,840	11,078	13,358
Gross Profit	1,649	2,469	2,294	2,610	2,482	2,580	2,641	3,119
Operating profit	421	531	423	374	485	412	567	608
Net profit (loss)	401	554	518	619	572	600	590	846
EPS (RMB)	0.16	0.19	0.19	0.20	0.20	0.19	0.19	0.27
Margins								
Gross margin	27.2%	30.7%	27.5%	26.0%	24.8%	23.8%	23.8%	23.4%
Operating margin	6.9%	6.6%	5.1%	3.7%	4.8%	3.8%	5.1%	4.6%
Net margin	6.6%	6.9%	6.2%	6.2%	5.7%	5.5%	5.3%	6.3%
Growth (HoH)								
Revenues	-7%	33%	4%	21%	0%	8%	2%	21%
Gross Profit	-18%	50%	-7%	14%	-5%	4%	2%	18%
Operating profit	5%	26%	-20%	-12%	30%	-15%	38%	7%
Net profit (loss)	2%	38%	-6%	20%	-8%	5%	-2%	43%
Growth (YoY)								
Revenues	9%	24%	38%	25%	20%	8%	11%	23%
Gross Profit	5%	22%	39%	6%	8%	-1%	6%	21%
Operating profit	-1%	32%	0%	-30%	15%	10%	17%	48%
Net profit (loss)	11%	41%	29%	12%	10%	-3%	3%	41%

Source: Company data, CMBIGM estimates

Valuation

Chinasoft (354 HK, BUY, TP HK\$9.14)

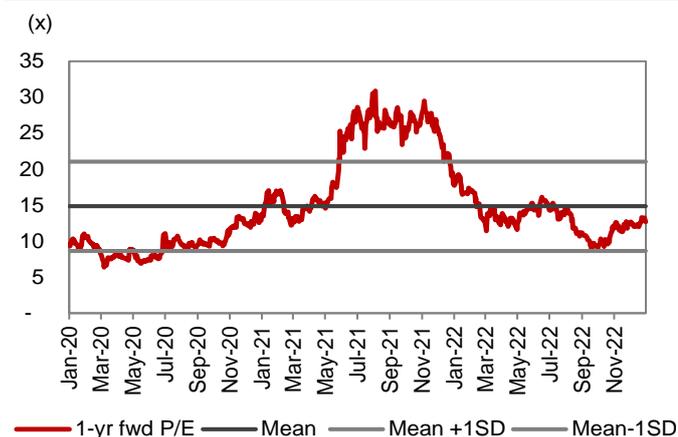
We lowered FY22 net profit by 6% but raised FY23-net profit by 3% as we expect enterprise digitalization and hence IT spending to reaccelerate with China COVID policy change. Maintain BUY with new target price of HK\$9.14 (prior HK\$7.79) as we roll forward to 15x fully diluted FY24E P/E (in-line with 3-year mean).

Figure 14: Peers' valuation

Company	Ticker	Rating	Mk Cap (US\$ mn)	Price (LC)	TP (LC)	P/E		ROE		Sales CAGR FY21-24	EPS CAGR FY21-24	
						FY23E	FY24E	FY23E	FY24E			
Chinasoft	354 HK	BUY	2,758	7.12	9.14	13.3	11.4	10.8	11.4	20%	13%	
iSoftStone	301236 CH	NR	3,645	38.85	N/A	13.8	10.3	16.1	17.4	22%	29%	
Digital China	000034 CH	NR	2,229	22.74	N/A	11.7	9.8	16.1	16.4	9%	84%	
Infosys	INFO IN	NR	76,007	1480.70	N/A	25.3	21.8	31.3	33.2	18%	14%	
Tata Consultancy	TCS IN	NR	150,111	3344.90	N/A	28.9	25.4	44.9	46.4	15%	15%	
						Mean	18.6	15.7	23.8	25.0	17%	31%
						Median	13.8	11.4	16.1	17.4	18%	15%

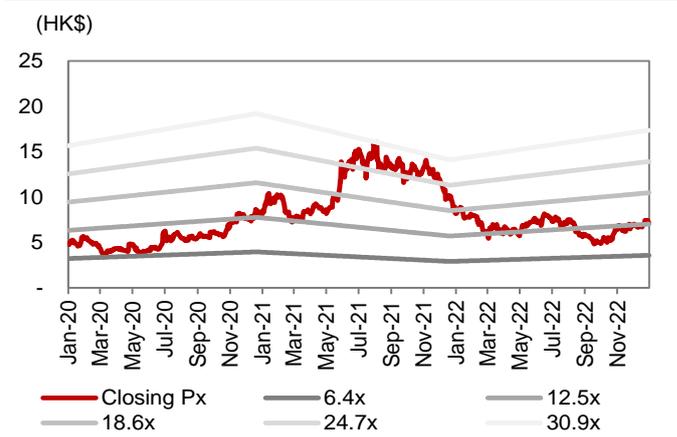
Source: Bloomberg, CMBIGM

Figure 15: 12M forward P/E band



Source: Company data, CMBIGM

Figure 16: 12M forward P/B band



Source: Company data, CMBIGM

Financial Summary

INCOME STATEMENT	2019A	2020A	2021A	2022E	2023E	2024E
YE 31 Dec (RMB mn)						
Revenue	12,042	14,101	18,398	20,865	24,436	27,773
Cost of goods sold	(8,459)	(9,983)	(13,494)	(15,804)	(18,675)	(21,085)
Gross profit	3,583	4,118	4,904	5,062	5,760	6,688
Operating expenses	(2,756)	(3,167)	(4,108)	(4,165)	(4,586)	(5,316)
Selling expense	(618)	(729)	(943)	(1,064)	(1,246)	(1,416)
Admin expense	(1,196)	(1,302)	(1,756)	(1,825)	(2,065)	(2,374)
R&D expense	(809)	(930)	(1,249)	(1,347)	(1,659)	(1,855)
Others	(134)	(205)	(159)	70	385	329
Operating profit	827	952	796	897	1,175	1,372
Interest expense	(166)	(151)	(100)	(110)	(85)	(95)
Others	138	235	555	461	467	535
Pre-tax profit	799	1,035	1,252	1,248	1,557	1,812
Income tax	(42)	(87)	(115)	(78)	(123)	(140)
Minority interest	2	(7)	(0)	(2)	(1)	(2)
Net profit	755	955	1,137	1,171	1,435	1,674
BALANCE SHEET						
	2019A	2020A	2021A	2022E	2023E	2024E
YE 31 Dec (RMB mn)						
Current assets	8,198	10,394	13,520	14,079	16,298	18,362
Cash & equivalents	2,526	3,787	5,556	7,510	8,201	9,342
Restricted cash	3,297	4,580	5,894	4,843	5,990	6,700
Other current assets	2,375	2,027	2,069	1,727	2,108	2,320
Non-current assets	2,547	2,693	3,383	3,476	3,503	3,527
PP&E	802	858	1,220	1,014	1,094	1,169
Intangibles	1,101	1,086	1,037	1,021	968	917
Other non-current assets	643	749	1,126	1,440	1,440	1,440
Total assets	10,745	13,087	16,902	17,555	19,801	21,889
Current liabilities	3,150	2,718	3,986	4,732	5,651	6,189
Short-term borrowings	1,523	368	917	2,027	2,299	2,474
Account payables	1,229	1,753	2,252	2,463	3,053	3,382
Other current liabilities	397	597	817	242	298	333
Non-current liabilities	1,062	1,592	1,290	215	215	215
Long-term borrowings	928	1,421	1,021	0	0	0
Other non-current liabilities	134	171	269	215	215	215
Total liabilities	4,211	4,311	5,276	4,947	5,866	6,404
Share capital	116	132	139	139	139	139
Capital surplus	3,145	4,735	6,294	6,223	6,223	6,223
Retained earnings	3,677	4,492	5,760	6,778	8,105	9,655
Other reserves	(471)	(605)	(589)	(554)	(554)	(554)
Total shareholders equity	6,468	8,753	11,604	12,586	13,913	15,463
Minority interest	66	23	23	22	22	22
Total equity and liabilities	10,745	13,087	16,902	17,555	19,801	21,889

CASH FLOW	2019A	2020A	2021A	2022E	2023E	2024E
YE 31 Dec (RMB mn)						
Operating						
Profit before taxation	799	1,035	1,252	1,248	1,557	1,812
Depreciation & amortization	197	170	221	140	123	126
Tax paid	(84)	(83)	(20)	(78)	(123)	(140)
Change in working capital	(516)	(533)	(887)	1,043	(882)	(559)
Others	358	564	396	367	0	0
Net cash from operations	754	1,153	962	2,720	675	1,239
Investing						
Capital expenditure	(105)	(159)	(287)	(150)	(150)	(150)
Others	(120)	(32)	(242)	(601)	(53)	(51)
Net cash from investing	(224)	(192)	(530)	(751)	(203)	(201)
Financing						
Dividend paid	(48)	(52)	(70)	(88)	(108)	(125)
Net borrowings	52	217	173	88	273	175
Others	(653)	196	1,274	(370)	1	2
Net cash from financing	(650)	362	1,377	(369)	166	52
Net change in cash						
Cash at the beginning of the year	2,646	2,526	3,787	5,556	7,510	8,201
Exchange difference	(1)	(62)	(40)	354	53	51
Cash at the end of the year	2,526	3,787	5,556	7,510	8,201	9,342
GROWTH	2019A	2020A	2021A	2022E	2023E	2024E
YE 31 Dec						
Revenue	13.8%	17.1%	30.5%	13.4%	17.1%	13.7%
Gross profit	10.4%	14.9%	19.1%	3.2%	13.8%	16.1%
Operating profit	1.5%	15.1%	(16.3%)	12.6%	31.0%	16.8%
Net profit	5.5%	26.5%	19.1%	3.0%	22.5%	16.7%
PROFITABILITY	2019A	2020A	2021A	2022E	2023E	2024E
YE 31 Dec						
Gross profit margin	29.8%	29.2%	26.7%	24.3%	23.6%	24.1%
Operating margin	6.9%	6.7%	4.3%	4.3%	4.8%	4.9%
Return on equity (ROE)	12.1%	12.5%	11.2%	9.7%	10.8%	11.4%
GEARING/LIQUIDITY/ACTIVITIES	2019A	2020A	2021A	2022E	2023E	2024E
YE 31 Dec						
Net debt to equity (x)	(0.0)	(0.2)	(0.3)	(0.4)	(0.4)	(0.4)
Current ratio (x)	2.6	3.8	3.4	3.0	2.9	3.0
Receivable turnover days	98.6	116.9	115.3	83.6	88.2	86.8
Inventory turnover days	2.3	1.9	4.4	4.2	4.4	4.3
Payable turnover days	87.8	73.4	52.3	63.2	60.1	56.1
VALUATION	2019A	2020A	2021A	2022E	2023E	2024E
YE 31 Dec						
P/E	11.4	12.5	23.0	16.0	13.0	11.2
P/E (diluted)	12.3	14.9	26.1	16.3	13.3	11.4
P/B	1.4	1.6	2.5	1.5	1.4	1.2
Div yield (%)	0.6	0.5	0.3	0.5	0.6	0.7
EV	18,835.1	16,912.8	15,291.9	13,427.0	13,008.5	12,041.8
EV/Sales	1.6	1.2	0.8	0.6	0.5	0.4

Source: Company data, CMBIGM estimates. Note: The calculation of net cash includes financial assets.

Disclosures & Disclaimers

Analyst Certification

The research analyst who is primary responsible for the content of this research report, in whole or in part, certifies that with respect to the securities or issuer that the analyst covered in this report: (1) all of the views expressed accurately reflect his or her personal views about the subject securities or issuer; and (2) no part of his or her compensation was, is, or will be, directly or indirectly, related to the specific views expressed by that analyst in this report.

Besides, the analyst confirms that neither the analyst nor his/her associates (as defined in the code of conduct issued by The Hong Kong Securities and Futures Commission) (1) have dealt in or traded in the stock(s) covered in this research report within 30 calendar days prior to the date of issue of this report; (2) will deal in or trade in the stock(s) covered in this research report 3 business days after the date of issue of this report; (3) serve as an officer of any of the Hong Kong listed companies covered in this report; and (4) have any financial interests in the Hong Kong listed companies covered in this report.

CMBIGM Ratings

BUY	: Stock with potential return of over 15% over next 12 months
HOLD	: Stock with potential return of +15% to -10% over next 12 months
SELL	: Stock with potential loss of over 10% over next 12 months
NOT RATED	: Stock is not rated by CMBIGM
OUTPERFORM	: Industry expected to outperform the relevant broad market benchmark over next 12 months
MARKET-PERFORM	: Industry expected to perform in-line with the relevant broad market benchmark over next 12 months
UNDERPERFORM	: Industry expected to underperform the relevant broad market benchmark over next 12 months

CMB International Global Markets Limited

Address: 45/F, Champion Tower, 3 Garden Road, Hong Kong, Tel: (852) 3900 0888 Fax: (852) 3900 0800

CMB International Global Markets Limited ("CMBIGM") is a wholly owned subsidiary of CMB International Capital Corporation Limited (a wholly owned subsidiary of China Merchants Bank)

Important Disclosures

There are risks involved in transacting in any securities. The information contained in this report may not be suitable for the purposes of all investors. CMBIGM does not provide individually tailored investment advice. This report has been prepared without regard to the individual investment objectives, financial position or special requirements. Past performance has no indication of future performance, and actual events may differ materially from that which is contained in the report. The value of, and returns from, any investments are uncertain and are not guaranteed and may fluctuate as a result of their dependence on the performance of underlying assets or other variable market factors. CMBIGM recommends that investors should independently evaluate particular investments and strategies, and encourages investors to consult with a professional financial advisor in order to make their own investment decisions.

This report or any information contained herein, have been prepared by the CMBIGM, solely for the purpose of supplying information to the clients of CMBIGM or its affiliate(s) to whom it is distributed. This report is not and should not be construed as an offer or solicitation to buy or sell any security or any interest in securities or enter into any transaction. Neither CMBIGM nor any of its affiliates, shareholders, agents, consultants, directors, officers or employees shall be liable for any loss, damage or expense whatsoever, whether direct or consequential, incurred in relying on the information contained in this report. Anyone making use of the information contained in this report does so entirely at their own risk.

The information and contents contained in this report are based on the analyses and interpretations of information believed to be publicly available and reliable. CMBIGM has exerted every effort in its capacity to ensure, but not to guarantee, their accuracy, completeness, timeliness or correctness. CMBIGM provides the information, advices and forecasts on an "AS IS" basis. The information and contents are subject to change without notice. CMBIGM may issue other publications having information and/ or conclusions different from this report. These publications reflect different assumption, point-of-view and analytical methods when compiling. CMBIGM may make investment decisions or take proprietary positions that are inconsistent with the recommendations or views in this report.

CMBIGM may have a position, make markets or act as principal or engage in transactions in securities of companies referred to in this report for itself and/or on behalf of its clients from time to time. Investors should assume that CMBIGM does or seeks to have investment banking or other business relationships with the companies in this report. As a result, recipients should be aware that CMBIGM may have a conflict of interest that could affect the objectivity of this report and CMBIS will not assume any responsibility in respect thereof. This report is for the use of intended recipients only and this publication, may not be reproduced, reprinted, sold, redistributed or published in whole or in part for any purpose without prior written consent of CMBIGM.

Additional information on recommended securities is available upon request.

For recipients of this document in the United Kingdom

This report has been provided only to persons (I) falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (as amended from time to time) ("The Order") or (II) are persons falling within Article 49(2) (a) to (d) ("High Net Worth Companies, Unincorporated Associations, etc.") of the Order, and may not be provided to any other person without the prior written consent of CMBIGM.

For recipients of this document in the United States

CMBIGM is not a registered broker-dealer in the United States. As a result, CMBIGM is not subject to U.S. rules regarding the preparation of research reports and the independence of research analysts. The research analyst who is primary responsible for the content of this research report is not registered or qualified as a research analyst with the Financial Industry Regulatory Authority ("FINRA"). The analyst is not subject to applicable restrictions under FINRA Rules intended to ensure that the analyst is not affected by potential conflicts of interest that could bear upon the reliability of the research report. This report is intended for distribution in the United States solely to "major US institutional investors", as defined in Rule 15a-6 under the US, Securities Exchange Act of 1934, as amended, and may not be furnished to any other person in the United States. Each major US institutional investor that receives a copy of this report by its acceptance hereof represents and agrees that it shall not distribute or provide this report to any other person. Any U.S. recipient of this report wishing to effect any transaction to buy or sell securities based on the information provided in this report should do so only through a U.S.-registered broker-dealer.

For recipients of this document in Singapore

This report is distributed in Singapore by CMBI (Singapore) Pte. Limited (CMBISG) (Company Regn. No. 201731928D), an Exempt Financial Adviser as defined in the Financial Advisers Act (Cap. 110) of Singapore and regulated by the Monetary Authority of Singapore. CMBISG may distribute reports produced by its respective foreign entities, affiliates or other foreign research houses pursuant to an arrangement under Regulation 32C of the Financial Advisers Regulations. Where the report is distributed in Singapore to a person who is not an Accredited Investor, Expert Investor or an Institutional Investor, as defined in the Securities and Futures Act (Cap. 289) of Singapore, CMBISG accepts legal responsibility for the contents of the report to such persons only to the extent required by law. Singapore recipients should contact CMBISG at +65 6350 4400 for matters arising from, or in connection with the report.