

China AI surveillance

Gov't projects picking up, power cuts impact limited

On the demand side, China public security projects bidding number growth accelerated in 3Q21 at +20% YoY (vs. +10% YoY in 2Q21). On the supply side, we think power outage issue to Hikvision and Dahua is negligible given high inventory level. For FY3Q21E, we believe Hikvision will again deliver faster revenue growth (+21% YoY) than Dahua (+18% YoY). Meanwhile, Dahua GPM is expected to decline sequentially with less Hisilicon inventory and more to-gov't projects implementation. **BUY Hikvision, HOLD Dahua.**

- 3Q21 public security projects bidding picking up.** We observed China public security projects bidding number growth accelerated in 3Q21 at +20% YoY (vs. +10% YoY in 2Q21), according to CCGP. Total number of projects is growing at +18% YoY YTD. In 3Q21, we believe more to-gov't projects were delivered and thus GPM of Hikvision/ Dahua could be down sequentially.
- Power shortage issue negligible to Hikvision/ Dahua.** We think the energy shortage and power cut issues have limited impact to Hikvision and Dahua although Dahua faces comparatively higher risk. On the assembly side, Hikvision can shift more production to the Chongqing plant if necessary as Hangzhou faces higher risk than Chongqing in not meeting energy intensity and consumption target. On the component supply side, although the surveillance-related hardware plants are located mainly in Jiangsu and Guangdong which have higher risk of not meeting energy target, impact to Hikvision and Dahua is negligible given high inventory level. Hikvision and Dahua inventory to sales level was at 0.76 and 0.87 in FY2Q21 respectively.
- Dahua to see higher margin pressure.** On Hikvision, we expect FY3Q21 revenue/ net profit to grow at +21%/ 15% to RMB21.5bn/ RMB4.4bn respectively. Net profit growth is slower than top-line as tax credit was recorded earlier this year in 2Q21 (usually in 3Q). On Dahua, we expect FY3Q21 revenue to grow at +18% YoY to RMB7.5bn, slower than that of Hikvision. GPM is expected to decline by -1.1 pct pts QoQ to 40.6% given less hisilicon inventory, more lower-margin to-gov't projects implementation and lower overseas revenue mix.
- Hikvision is a safer name to play.** We largely keep Hikvision and Dahua FY21-23E earnings forecast. Maintain BUY on Hikvision with new target price of RMB79.62 (prior RMB80.00) on unchanged 36x FY22 P/E. Keep HOLD rating on Dahua with new target price of RMB24.37 (prior RMB23.36) on unchanged 17x FY22 P/E. We expect valuation gap between Hikvision and Dahua to widen further as Hikvision's stronger R&D allows higher growth and smoother supply chain transition.

Valuation Table

Company	Ticker	Rating	Mkt Cap (US\$ mn)	Price (LC)	TP (LC)	Up/down-side (%)	P/E		ROE	
							FY21E	FY22E	FY21E	FY22E
Hikvision	002415 CH	BUY	82,804	57.15	79.62	39%	31.8	25.8	28.7	30.0
Dahua	002236 CH	HOLD	11,176	24.04	24.37	1%	19.5	16.8	17.0	17.0
China Transinfo	002373 CH	NR	3,673	14.97	N/A	N/A	18.6	15.1	9.7	10.9
iFlytek	002230 CH	NR	19,458	54.50	N/A	N/A	70.7	53.6	12.1	14.3
Cambricon Tech	688256 CH	NR	5,092	82.00	N/A	N/A	N/A	N/A	-13.3	-17.0

Source: Company data, Bloomberg, CMBIS estimates

OUTPERFORM
(Maintain)

China software & IT services

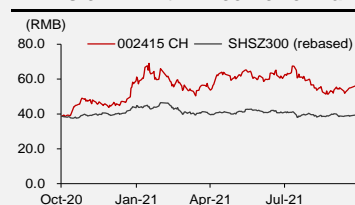
Marley Ngan

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

Bowen Li

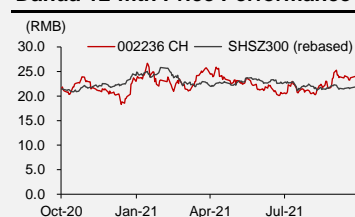
(852) 3761 8957
libowen@cmbi.com.hk

Hikvision 12-mth Price Performance



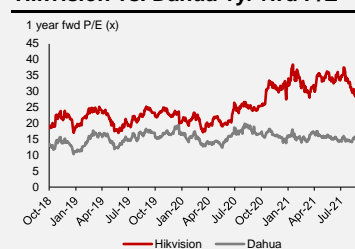
Source: Bloomberg, CMBIS

Dahua 12-mth Price Performance



Source: Bloomberg, CMBIS

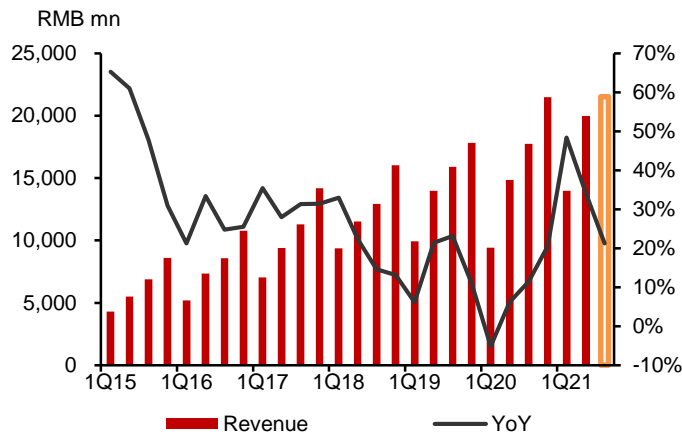
Hikvision vs. Dahua 1yr fwd P/E



Source: Bloomberg, CMBIS

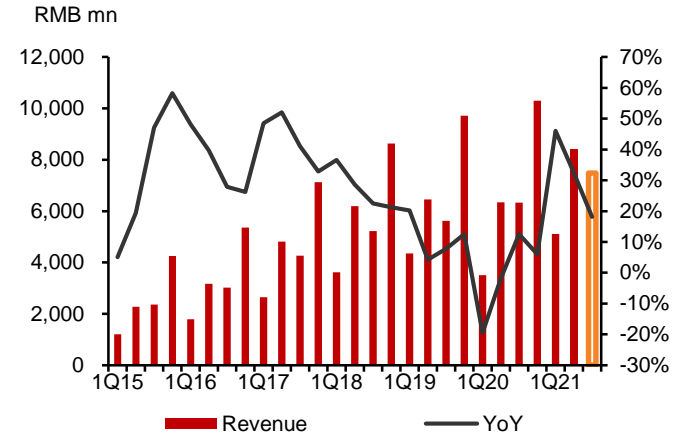
Focus Charts

Figure 1: We expect Hikvision 3Q21 revenue to grow +21% YoY to RMB21.5bn



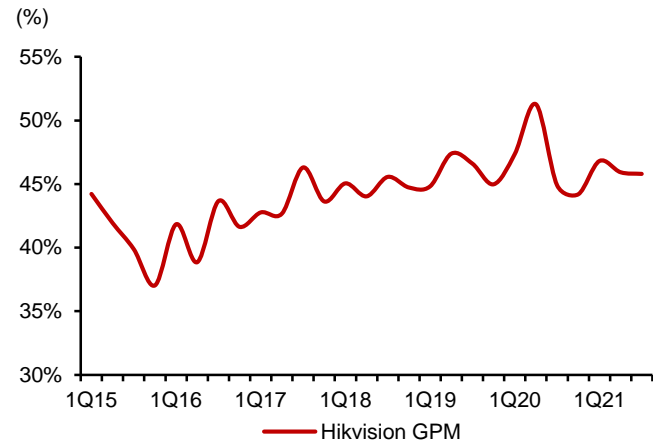
Source: Company data, CMBIS estimates

Figure 2: We expect Dahua 3Q21 revenue to grow +18% YoY to RMB7.5bn



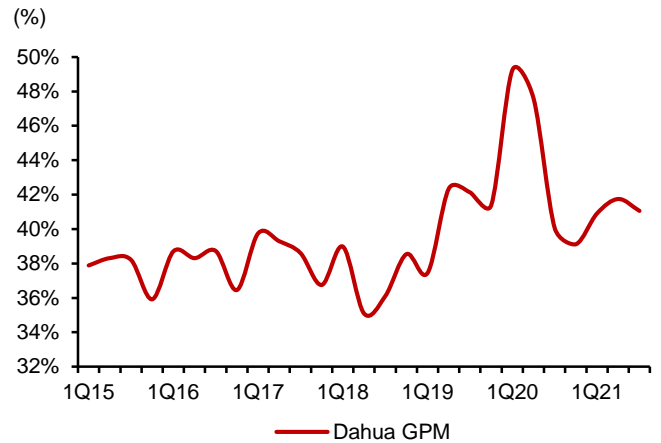
Source: Company data, CMBIS estimates

Figure 3: Our Hikvision 3Q21E GPM of 45.8% is higher than consensus of 44.8%



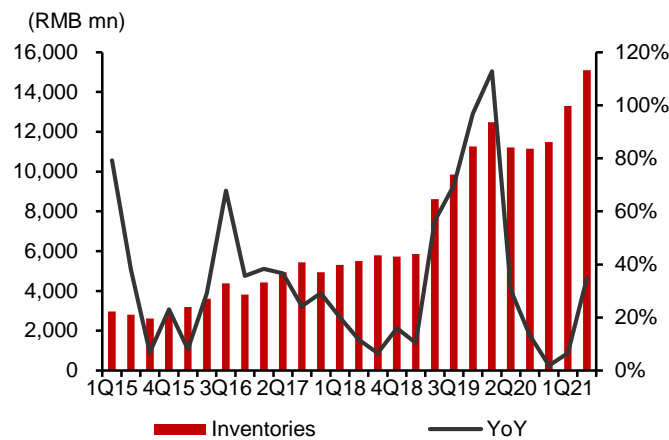
Source: Company data, CMBIS estimates

Figure 4: Our Dahua 3Q21E GPM of 40.6% is lower than consensus of 41.5%



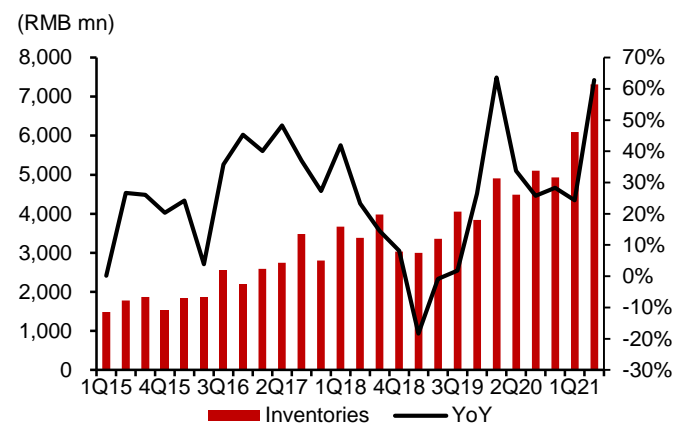
Source: Bloomberg, Company data, CMBIS estimates

Figure 5: Hikvision inventory



Source: Company data, CMBIS estimates

Figure 6: Dahua inventory



Source: Company data, CMBIS estimates

Demand: YTD surveillance bidding up +18% YoY

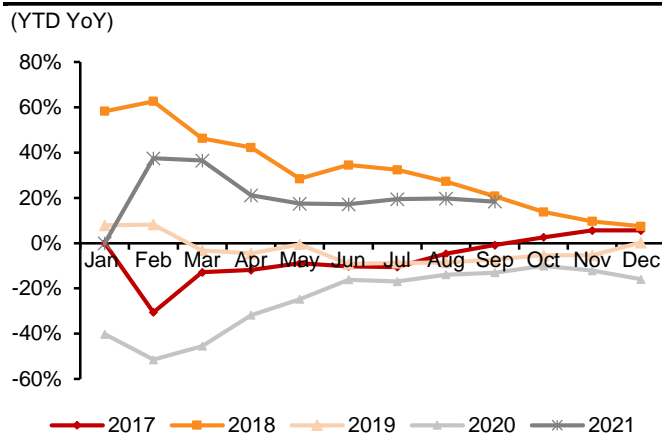
We observed that China public security projects tendering and bidding number is picking up again in 3Q21 at +20% YoY (+10% YoY in 2Q21), according to Center of China Government Procurement (CCGP). Total number of projects increased at +18% YoY year-to-date.

Hikvision and Dahua continue to recover from Covid-19 when public security projects delayed. In 2Q21, Hikvision and Dahua total revenue was up by +34% YoY and +32% YoY respectively. In 3Q21E, we expect Hikvision and Dahua to achieve revenue growth of +21% and +18% YoY.

We maintain our view that Dahua will face more margin pressure with less Hisilicon inventory buffer. Dahua 2Q21 gross margin was down 5.8 pct pts YoY to 41.7% while that of Hikvision dropped by 5.3 pct pts YoY to 45.9%, considering the fact that 2Q20 gross margin was a high base due to Covid-19 (more high-margin infrared cameras were being sold).

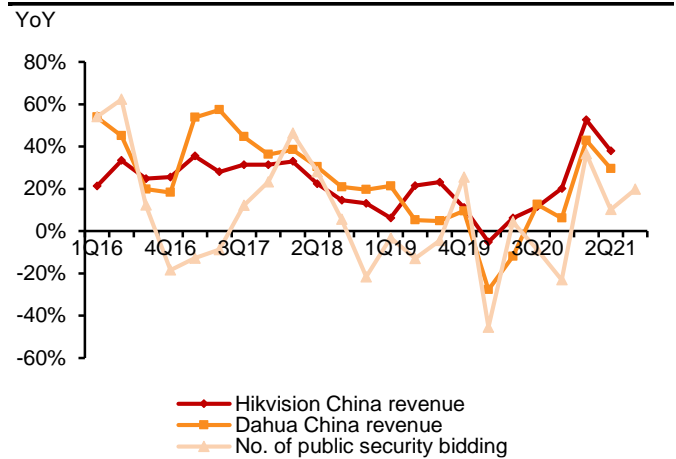
Entering 2H with more to-gov't projects delivery, we expect Hikvision 3Q21 GPM to be flattish QoQ at 45.8% while Dahua to be down 1.1 pct pts QoQ to 40.6%.

Figure 7: YTD no. of public security projects bidding increased at +17% YoY



Source: CCGP, CMBIS

Figure 8: No. of public security project bidding reflects Hikvision and Dahua revenue trend



Source: CCGP, Company data, CMBIS estimates

Supply: power cuts impact negligible given high inventory level

We think the energy shortage and power cut issues have limited impact to Hikvision and Dahua, but Dahua sees higher pressure than Hikvision comparatively.

For the assembly, Hikvision has three plants located in Hangzhou and Chongqing while Dahua core production plant is located in Hangzhou. Although risk of Hangzhou (Zhejiang province) not achieving 2021 energy intensity and energy consumption target is medium (yellow color), we think Hikvision can shift production to Chongqing if necessary as Chongqing energy level is in green color.

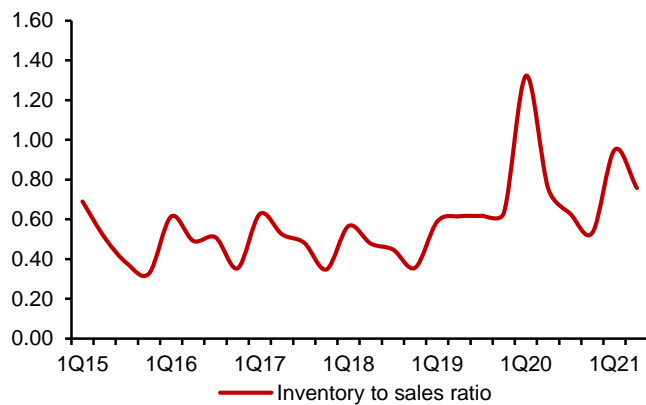
For the supply chain, surveillance-related hardware component plants are located in Jiangsu (yellow colour) and Guangdong (red color) provinces. Power cuts could affect the component supply. However, as Hikvision and Dahua have piled up high level of inventories on hand (FY2Q21 inventory to sales ratio was 0.76 and 0.87 for Hikvision and Dahua respectively), we believe the overall impact from power cuts is negligible to both companies.

Figure 9: Power-cut issue impacts Dahua more than Hikvision comparatively

Company	Manufacturing Plant location	Level of achieving target in	
		Energy intensity	Energy consumption
Hikvision	Hangzhou (Binjiang)	Yellow	Yellow
	Hangzhou (Tonglu)	Yellow	Yellow
	Chongqing	Green	Green
Dahua	Hangzhou	Yellow	Yellow

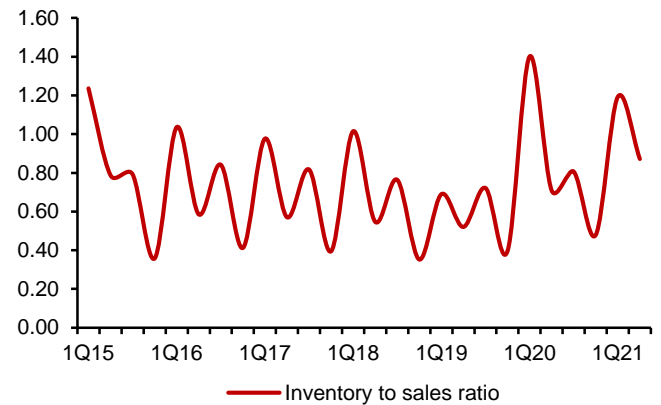
Source: Company data, CMBIS *Red implies the highest risk of not achieving the target, green is the lowest

Figure 10: Hikvision inventory to sales level



Source: Company data, CMBIS

Figure 11: Dahua inventory to sales level



Source: Company data, CMBIS

Hikvision 3Q21 preview

Figure 12: Earnings revision

RMB mn	2021E			2022E			2023E		
	New	Old	%Diff	New	Old	%Diff	New	Old	%Diff
Sales	80,448	80,603	-0%	95,131	95,313	-0%	108,819	109,022	0%
Gross profit	37,033	37,267	-1%	44,107	44,260	-0%	50,899	51,101	-0%
OP Profit	17,119	17,315	-1%	21,247	21,359	-1%	25,060	25,215	-1%
PBT	19,421	19,618	-1%	23,519	23,632	-0%	27,687	27,846	-1%
Net profit	16,800	16,969	-1%	20,647	20,747	0%	24,048	24,187	-1%
EPS	1.80	1.82	-1%	2.21	2.22	0%	2.58	2.59	-1%
Margins									
GM	46.0%	46.2%	-20 bps	46.4%	46.4%	-7 bps	46.8%	46.9%	-10 bps
OPM	21.3%	21.5%	-20 bps	22.3%	22.4%	-7 bps	23.0%	23.1%	-10 bps
PBT margin	24.1%	24.3%	-20 bps	24.7%	24.8%	-7 bps	25.4%	25.5%	-10 bps
Net margin	20.9%	21.1%	-17 bps	21.7%	21.8%	-6 bps	22.1%	22.2%	-9 bps

Source: Company data, CMBIS, Bloomberg

Figure 13: Hikvision CMBI estimates vs. consensus

RMB mn	FY3Q21			2021			2022		
	CMBI	Street	Diff	CMBI	Street	Diff	CMBI	Street	Diff
Sales	21,519	21,537	-0%	80,448	79,850	1%	95,131	95,924	-1%
Gross profit	9,857	9,652	2%	37,033	36,601	1%	44,107	44,167	-0%
OP Profit	4,628	7,387	-37%	17,119	18,862	-9%	21,247	23,223	-9%
PBT	5,494	7,872	-30%	19,421	19,207	1%	23,519	23,695	-1%
Net profit	4,393	6,157	-29%	16,800	16,789	0%	20,647	20,766	-1%
EPS	0.47	0.46	2%	1.80	1.80	0%	2.21	2.20	0%
Margins									
GM	45.8%	44.8%	99 bps	46.0%	45.8%	20 bps	46.4%	46.0%	32 bps
OPM	21.5%	34.3%	-1279 bps	21.3%	23.6%	-234 bps	22.3%	24.2%	-188 bps
PBT margin	25.5%	36.6%	-1102 bps	24.1%	24.1%	9 bps	24.7%	24.7%	2 bps
Net margin	20.4%	28.6%	-817 bps	20.9%	21.0%	-14 bps	21.7%	21.6%	6 bps

Source: Company data, CMBIS, Bloomberg

Figure 14: Hikvision quarterly operating model

RMB mn	1Q20	2Q20	3Q20	4Q20	1Q21	2Q21	3Q21E	4Q21E
Revenues	9,429	14,842	17,750	21,482	13,988	19,914	21,519	25,027
Gross Profit	4,466	7,612	7,973	9,495	6,549	9,148	9,857	11,479
Operating profit	1,472	3,088	3,896	5,126	2,569	3,899	4,628	6,023
Net profit (loss)	1,496	3,128	3,815	4,947	2,169	4,312	4,393	5,925
EPS (RMB)	0.16	0.33	0.41	0.53	0.23	0.46	0.47	0.63
Margins								
Gross margin	47.4%	51.3%	44.9%	44.2%	46.8%	45.9%	45.8%	45.9%
Operating margin	15.6%	20.8%	21.9%	23.9%	18.4%	19.6%	21.5%	24.1%
Net margin	15.9%	21.1%	21.5%	23.0%	15.5%	21.7%	20.4%	23.7%
Growth (QoQ)								
Revenues	-47%	57%	20%	21%	-35%	42%	8%	16%
Gross Profit	-44%	70%	5%	19%	-31%	40%	8%	16%
Operating profit	-60%	110%	26%	32%	-50%	52%	19%	30%
Net profit (loss)	-66%	109%	22%	30%	-56%	99%	2%	35%
Growth (YoY)								
Revenues	-5%	6%	12%	21%	48%	34%	21%	16%
Gross Profit	0%	15%	7%	18%	47%	20%	24%	21%
Operating profit	-11%	10%	13%	41%	74%	26%	19%	17%
Net profit (loss)	-3%	17%	0%	13%	45%	38%	15%	20%

Source: Company data, CMBIS

Dahua 3Q21 preview

Figure 15: Earnings revision

RMB mn	2021E			2022E			2023E		
	New	Old	%Diff	New	Old	%Diff	New	Old	%Diff
Sales	32,508	31,272	4%	36,804	35,810	3%	42,525	39,966	6%
Gross profit	13,216	13,022	1%	15,253	15,068	1%	17,814	16,989	5%
OP Profit	3,759	3,752	0%	4,487	4,378	2%	5,446	5,430	0%
PBT	3,931	4,008	-2%	4,845	4,715	3%	5,826	5,763	1%
Net profit	3,689	3,648	1%	4,293	4,248	1%	5,173	5,238	-1%
EPS	1.23	1.22	1%	1.43	1.42	1%	1.73	1.75	-1%
Margins									
GM	40.7%	41.6%	-99 bps	41.4%	42.1%	-63 bps	41.9%	42.5%	-62 bps
OPM	11.6%	12.0%	-43 bps	12.2%	12.2%	-3 bps	12.8%	13.6%	-78 bps
PBT margin	12.1%	12.8%	-73 bps	13.2%	13.2%	0 bps	13.7%	14.4%	-72 bps
Net margin	11.3%	11.7%	-32 bps	11.7%	11.9%	-20 bps	12.2%	13.1%	-94 bps

Source: Company data, CMBIS, Bloomberg

Figure 16: Dahua CMBI estimates vs. consensus

RMB mn	FY3Q21			2021			2022		
	CMBI	Street	Diff	CMBI	Street	Diff	CMBI	Street	Diff
Sales	7,477	11,663	-36%	32,508	32,485	0%	36,804	38,692	-5%
Gross profit	3,039	4,834	-37%	13,216	13,606	-3%	15,253	16,245	-6%
OP Profit	585	922	-37%	3,759	4,685	-20%	4,487	5,724	-22%
PBT	706	1,791	-61%	3,931	4,702	-16%	4,845	5,752	-16%
Net profit	632	1,647	-62%	3,689	4,325	-15%	4,293	5,191	-17%
EPS	0.2	0.3	-33%	1.2	1.5	-15%	1.4	1.8	-19%
Margins									
GM	40.6%	41.5%	-80 bps	40.7%	41.9%	-123 bps	41.4%	42.0%	-54 bps
OPM	7.8%	7.9%	-8 bps	11.6%	14.4%	-286 bps	12.2%	14.8%	-260 bps
PBT margin	9.4%	15.4%	-591 bps	12.1%	14.5%	-238 bps	13.2%	14.9%	-170 bps
Net margin	8.5%	14.1%	-567 bps	11.3%	13.3%	-197 bps	11.7%	13.4%	-175 bps

Source: Company data, CMBIS, Bloomberg

Figure 17: Dahua quarterly operating model

RMB mn	1Q20	2Q20	3Q20	4Q20	1Q21	2Q21	3Q21E	4Q21E
Revenues	3,502	6,337	6,328	10,300	5,114	8,391	7,477	11,526
Gross Profit	1,724	3,015	2,534	4,028	2,092	3,502	3,039	4,583
Operating profit	177	1,031	516	1,342	370	1,266	585	1,539
Net profit (loss)	318	1,051	1,456	1,078	348	1,296	632	1,414
EPS (RMB)	0.35	0.49	0.36	0.12	0.27	0.21	0.47	0.15
Margins								
Gross margin	49.2%	47.6%	40.0%	39.1%	40.9%	41.7%	40.6%	39.8%
Operating margin	5.1%	16.3%	8.1%	13.0%	7.2%	15.1%	7.8%	13.4%
Net margin	9.1%	16.6%	23.0%	10.5%	6.8%	15.4%	8.5%	12.3%
Growth (QoQ)								
Revenues	-64%	81%	0%	63%	-50%	64%	-11%	54%
Gross Profit	-57%	75%	-16%	59%	-48%	67%	-13%	51%
Operating profit	-89%	482%	-50%	160%	-72%	242%	-54%	163%
Net profit (loss)	-76%	231%	39%	-26%	-68%	273%	-51%	124%
Growth (YoY)								
Revenues	-19%	-2%	13%	6%	46%	32%	18%	12%
Gross Profit	6%	10%	7%	0%	21%	16%	20%	14%
Operating profit	-31%	13%	51%	-15%	109%	23%	13%	15%
Net profit (loss)	0%	14%	128%	-18%	10%	24%	-57%	31%

Source: Company data, CMBIS, Bloomberg

Valuation

Hikvision (002145 CH, BUY, TP RMB79.62)

Maintain BUY with new target price of RMB79.62 (prior RMB80.00), on unchanged 36x FY22 P/E, 50% above its 3-year mean. We believe Hikvision deserves re-rating as supply chain risk is mitigated after two years of product re-design, and new growth drivers (AI) in enterprise segment is emerging. Also, Hikvision announced plan to spin-off its smart home business (Ezviz Network) on STAR board. We believe the spin-off could provide new financing channel to support IoT/ AI R&D.

Dahua (002236 CH, HOLD, TP RMB24.37)

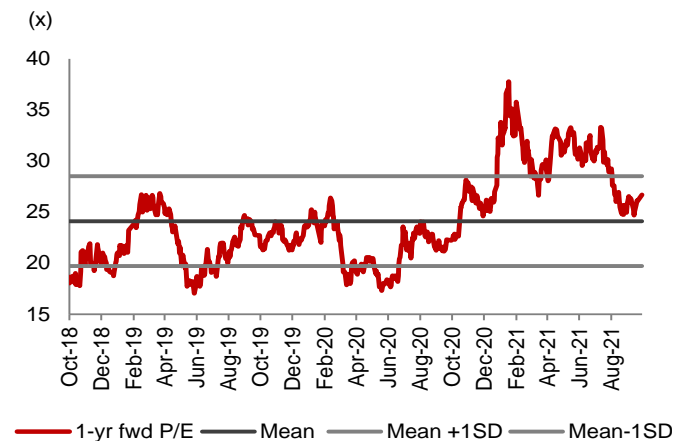
Maintain HOLD with new target price of RMB24.37 (prior RMB23.36), based on unchanged 17x FY22 P/E. We are less positive on Dahua amid chip shortage with less Hisilicon inventory buffer than Hikvision. We expect valuation gap between Hikvision and Dahua to widen.

Figure 18: Peers' valuation

Company	Ticker	Rating	Mkt Cap (US\$ mn)	Price (LC)	TP (LC)	P/E		ROE		Sales CAGR FY20-23E	EPS CAGR FY20-23E	
						FY21E	FY22E	FY21E	FY22E			
Hikvision	002415 CH	BUY	82,804	57.15	79.62	31.8	25.8	28.7	30.0	20%	22%	
Dahua	002236 CH	HOLD	11,176	24.04	24.37	19.5	16.8	17.0	17.0	17%	10%	
China Transinfo	002373 CH	NR	3,673	14.97	N/A	18.6	15.1	9.7	10.9	16%	18%	
iFlytek	002230 CH	NR	19,458	54.50	N/A	70.7	53.6	12.1	14.3	32%	34%	
Cambricon Tech	688256 CH	NR	5,092	82.00	N/A	N/A	N/A	-13.3	-17.0	30%	2%	
						Mean	34.4	26.9	11.2	11.3	24%	19%
						Median	25.1	20.2	12.1	14.3	22%	18%

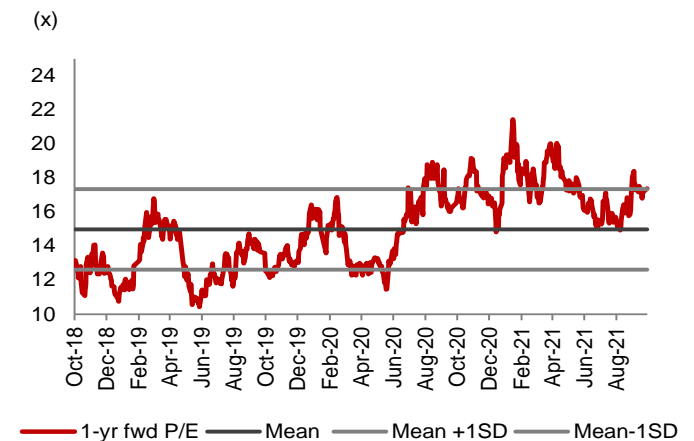
Source: Bloomberg, CMBIS estimates

Figure 19: Hikvision 12M forward P/E chart



Source: Company data, CMBIS, Bloomberg

Figure 20: Dahua 12M forward P/E chart



Source: Company data, CMBIS, Bloomberg

Financial Summary – Hikvision (002415 CH)

Income statement						Cash flow summary					
YE 31 Dec (RMB mn)	FY19	FY20	FY21E	FY22E	FY23E	YE 31 Dec (RMB mn)	FY19	FY20	FY21E	FY22E	FY23E
Revenue	57,658	63,503	80,448	95,131	108,819	Net profit	12,415	13,386	16,800	20,647	24,048
Cost of sales	(31,140)	(33,958)	(43,415)	(51,025)	(57,920)	Depreciation/amortization	699	845	1,122	1,276	1,399
Gross profit	26,518	29,546	37,033	44,107	50,899	Change in working capital	(7,153)	597	(12,733)	(139)	9,858
Selling exp	(7,257)	(7,378)	(9,247)	(10,184)	(11,599)	Others	1,807	1,260	784	638	870
Admin exp	(1,822)	(1,790)	(1,926)	(2,379)	(2,663)	Net cash from operating	7,768	16,088	5,973	22,422	36,175
R&D exp	(5,484)	(6,379)	(8,157)	(9,645)	(10,817)	Capex	(1,927)	(2,004)	(2,409)	(2,172)	(2,251)
Other operating exp.	(417)	(416)	(585)	(651)	(760)	Other	4	(551)	192	0	0
Operating profit	11,538	13,583	17,119	21,247	25,060	Net cash from investing	(1,923)	(2,555)	(2,218)	(2,172)	(2,251)
Finance costs	640	(396)	498	439	875	Net borrowings	187	2,049	1,087	1,043	(2,421)
Other non-oper exp.	1,578	2,086	1,804	1,833	1,752	Dividend paid	(5,609)	(6,542)	(7,475)	(9,381)	(11,530)
Pre-tax profit	13,755	15,273	19,421	23,519	27,687	Other	(14)	(189)	(334)	(638)	(870)
Income tax expense	(1,290)	(1,595)	(2,048)	(2,234)	(2,769)	Net cash from financing	(5,436)	(4,681)	(6,722)	(8,976)	(14,821)
Minority interests	(51)	(293)	(573)	(638)	(870)	Net change in cash	408	8,852	(2,967)	11,274	19,104
Net profit to S/H	12,415	13,386	16,800	20,647	24,048	Cash at beginning of the year	26,552	27,072	35,460	32,419	43,693
						Exchange difference	111	(464)	(74)	0	0
						Cash at the end of the year	27,072	35,460	32,419	43,693	62,797
Balance sheet						Key ratios					
YE 31 Dec (RMB mn)	FY19	FY20	FY21E	FY22E	FY23E	YE 31 Dec	FY19	FY20	FY21E	FY22E	FY23E
Current assets	64,026	74,763	81,271	100,708	126,622	Revenue mix					
Cash & equivalents	27,072	35,460	32,419	43,693	62,797	Core camera solution	90%	88%	83%	81%	79%
Account receivables	23,146	24,098	32,363	36,566	40,899	Construction	2%	3%	2%	2%	2%
Inventory	11,268	11,478	12,342	15,755	17,353	Smart home business	4%	5%	5%	6%	6%
Other current assets	2,540	3,727	4,147	4,695	5,573	Robotics	1%	2%	3%	4%	5%
Non-current assets	11,332	13,939	15,287	16,183	17,035	Other innovative business	2%	3%	6%	7%	8%
PPE	6,423	7,301	8,422	9,318	10,170	Growth (%)					
Intangible assets	1,407	1,634	1,590	1,590	1,590	Revenue	16%	10%	27%	18%	14%
Other non-current assets	3,502	5,003	5,275	5,275	5,275	Operating profit	13%	18%	26%	24%	18%
Total assets						EPS	8%	8%	26%	23%	16%
Current liabilities	23,521	31,225	28,630	37,329	52,141	Margin (%)					
ST borrowings	2,726	7,507	8,107	8,781	6,926	Gross margin	46.0%	46.5%	46.0%	46.4%	46.8%
Account payables	13,940	14,631	9,651	16,196	30,876	Operating margin	20.0%	21.4%	21.3%	22.3%	23.0%
Accrued expense	5,941	6,173	8,228	8,548	9,560	Net profit margin	21.5%	21.1%	20.9%	21.7%	22.1%
Other current liabilities	914	2,914	2,645	3,804	4,779	Balance sheet ratio					
Non-current liabilities	6,364	2,997	3,627	3,996	3,430	Current ratio (x)	2.72	2.39	2.84	2.70	2.43
LT borrowings	4,604	1,961	2,467	2,836	2,271	Receivable turnover days	137	136	128	132	130
Other non-current liabilities	1,760	1,036	1,159	1,159	1,159	Inventory turnover days	54	65	54	54	56
Total liabilities	29,885	34,222	32,257	41,325	55,571	Payable turnover days	163	157	81	116	104
Share capital	9,345	9,343	9,336	9,336	9,336	Net debt to equity	net cash	net cash	net cash	net cash	net cash
Capital surplus	4,127	5,179	5,183	5,183	5,183	Profitability (%)					
Retained earnings	33,634	40,479	49,821	61,086	73,605	ROE	30.1%	27.1%	28.7%	30.0%	29.8%
Other reserves	(2,202)	(1,207)	(1,115)	(1,115)	(1,115)	ROIC	45.1%	42.7%	41.9%	43.6%	56.2%
Minority interest	569	685	1,076	1,076	1,076	Per share data (RMB)					
Total equity	44,904	53,794	63,224	74,490	87,009	EPS (RMB)	1.33	1.43	1.80	2.21	2.58
Total liab. and equity	74,789	88,016	95,481	115,815	142,580	DPS (RMB)	0.60	0.70	0.80	1.00	1.23
						BVPS (RMB)	4.81	5.76	6.77	7.98	9.32

Source: Company data, CMBIS estimates

Financial Summary – Dahua (002236 CH)

Income statement

YE 31 Dec (RMB mn)	FY19	FY20	FY21E	FY22E	FY23E
Revenue	26,149	26,466	32,508	36,804	42,525
Cost of sales	(15,396)	(15,164)	(19,291)	(21,551)	(24,711)
Gross profit	10,753	11,302	13,216	15,253	17,814
Selling exp	(3,953)	(4,291)	(4,917)	(5,548)	(6,281)
Admin exp	(741)	(785)	(848)	(983)	(1,123)
R&D exp	(2,794)	(2,998)	(3,447)	(4,018)	(4,702)
Other operating exp.	(183)	(162)	(246)	(217)	(261)
Operating profit	3,083	3,066	3,759	4,487	5,446
Finance costs	33	58	(78)	35	51
Other non-oper exp.	383	1,125	249	323	329
Pre-tax profit	3,499	4,249	3,931	4,845	5,826
Income tax expense	(338)	(314)	(191)	(484)	(583)
Minority interests	27	(32)	(50)	(67)	(70)
Net profit to S/H	3,188	3,903	3,689	4,293	5,173

Cash flow summary

YE 31 Dec (RMB mn)	FY19	FY20	FY21E	FY22E	FY23E
Net profit	3,188	3,903	3,689	4,293	5,173
Depreciation/amortization	297	331	363	363	363
Change in working capital	(28)	(186)	(6,545)	(3,297)	(921)
Others	(1,857)	354	618	67	70
Net cash from operating	1,601	4,402	(1,875)	1,427	4,685
Capex	(531)	(642)	(864)	(552)	(638)
Other	(309)	452	(396)	0	0
Net cash from investing	(840)	(190)	(1,260)	(552)	(638)
Net borrowings	(1,462)	715	2,240	203	506
Dividend paid	(300)	(399)	(803)	(759)	(883)
Other	(120)	53	(13)	(67)	(70)
Net cash from financing	(1,882)	369	1,424	(623)	(448)
Net change in cash	(1,121)	4,580	(1,711)	252	3,599
Cash at beginning of the year	4,160	3,084	7,472	5,725	5,977
Exchange difference	45	(193)	(36)	0	0
Cash at the end of the year	3,084	7,472	5,725	5,977	9,577

Balance sheet

YE 31 Dec (RMB mn)	FY19	FY20	FY21E	FY22E	FY23E
Current assets	22,975	29,112	33,230	39,307	45,127
Cash & equivalents	3,084	7,472	5,725	5,977	9,577
Account receivables	13,241	13,090	18,947	22,683	24,479
Inventory	3,840	4,928	5,492	7,462	7,809
Other current assets	2,810	3,622	3,067	3,184	3,263
Non-current assets	6,589	7,483	9,352	9,540	9,815
PPE	1,958	2,680	3,369	3,628	3,973
Intangible assets	492	482	629	558	488
Other non-current assets	4,139	4,321	5,354	5,354	5,354
Total assets	29,565	36,595	42,582	48,847	54,943
Current liabilities	12,531	14,662	15,343	17,871	19,171
ST borrowings	427	402	1,363	1,363	1,363
Account payables	8,098	9,703	9,361	11,116	12,333
Accrued expense	3,935	3,676	3,463	4,235	4,319
Other current liabilities	71	881	1,157	1,157	1,157
Non-current liabilities	1,057	1,729	3,153	3,356	3,861
LT borrowings	154	878	2,244	2,447	2,953
Other non-current liabilities	904	851	909	909	909
Total liabilities	13,588	16,391	18,496	21,227	23,033
Share capital	3,004	2,996	2,995	2,995	2,995
Capital surplus	1,883	1,990	2,593	2,593	2,593
Retained earnings	11,802	15,309	18,196	21,730	26,020
Other reserve	(1,045)	(521)	(234)	(234)	(234)
Minority interest	333	431	537	537	537
Total equity	15,643	19,773	23,549	27,083	31,373
Total liab. and equity	29,231	36,164	42,045	48,310	54,406

Key ratios

YE 31 Dec	FY19	FY20	FY21E	FY22E	FY23E
Revenue mix					
Domestic	63%	60%	60%	61%	62%
Overseas	37%	40%	40%	39%	38%
Growth (%)					
Domestic	9%	-3%	21%	15%	17%
Overseas	13%	8%	25%	10%	13%
Revenue	10%	1%	23%	13%	16%
Gross profit	22%	5%	17%	15%	17%
Operating profit	33%	-1%	23%	19%	21%
EPS	26%	23%	-5%	16%	20%
Profit & loss ratio (%)					
Gross margin	41%	43%	41%	41%	42%
Operating margin	11.8%	11.6%	11.6%	12.2%	12.8%
Net profit margin	12.2%	14.7%	11.3%	11.7%	12.2%
Balance sheet ratio					
Current ratio (x)	1.83	1.99	2.17	2.20	2.35
Receivable turnover days	180	182	180	206	202
Inventory turnover days	48	60	58	64	66
Payable turnover days	109	123	107	102	101
Net debt to equity	net cash	net cash	net cash	net cash	net cash
Profitability (%)					
ROE	22.6%	22.0%	17.0%	17.0%	17.7%
ROIC	26.3%	24.0%	21.6%	17.9%	19.7%
Per share data (RMB)					
EPS (RMB)	1.06	1.30	1.23	1.43	1.73
DPS (RMB)	0.10	0.13	0.27	0.25	0.29
BVPS (RMB)	5.21	6.60	7.86	9.04	10.48

Source: Company data, CMBIS estimates

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.

CMBIS 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 CMBIS

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 Securities Limited

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

CMB International Securities Limited ("CMBIS") 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. CMBIS 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. CMBIS 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 CMBIS, solely for the purpose of supplying information to the clients of CMBIS 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 CMBIS 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. CMBIS has exerted every effort in its capacity to ensure, but not to guarantee, their accuracy, completeness, timeliness or correctness. CMBIS provides the information, advices and forecasts on an "AS IS" basis. The information and contents are subject to change without notice. CMBIS 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. CMBIS may make investment decisions or take proprietary positions that are inconsistent with the recommendations or views in this report.

CMBIS 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 CMBIS 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 CMBIS 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 CMBIS.

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 CMBIS.

For recipients of this document in the United States

CMBIS is not a registered broker-dealer in the United States. As a result, CMBIS 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.