

China AI surveillance

Still a lot of Hisilicon inventories

Ambarella (AMBA) suggested strong CV demand and commented that some Chinese customers are still consuming Hisilicon inventories (could be enough for another 12 months). We are concerned that Dahua will see higher GPM pressure with less Hisilicon inventories, compared to Hikvision. Meanwhile, U.S. may tighten export control and foreign investment regarding emerging technology. This could weigh on AI sector sentiment in the near term.

- Enough Hisilicon inventories to survive another 12 months.** AMBA delivered strong FY1Q22 results with revenue growth of +28% YoY although Hikvision and Dahua combined contribution fell to about 10% level. AMBA maintained its guidance that Computer Vision (CV) products will account for 25% of FY22E revenue (10% in FY21) and majority still comes from security camera. This could imply increasing AI camera penetration worldwide but that Hikvision/ Dahua are reducing reliance on AMBA chips (In FY1Q21, Hikvision/ Dahua revenue was up by +48% YoY/+46% YoY respectively). AMBA is yet to penetrate into Hikvision CV supply chain but Dahua and Uniview only. AMBA also commented some customers gave indication that they can easily survive another 12 months with Hisilicon inventories.
- Dahua should see higher supply chain risk than Hikvision.** We expect Hikvision/ Dahua to achieve revenue growth of +21% YoY/ +18% YoY respectively in FY2Q21E, on demand recovery from COVID-19. However, we are concerned that Dahua could face higher margin pressure as it needs to source from other suppliers at higher ASP amid global chip shortage with less Hisilicon inventories on hand. Dahua FY1Q21 GPM was down 8.3 pct pts YoY to 40.9% while that of Hikvision only dropped by 0.5 pct pts YoY to 46.8%.
- Potentially broader export control and tighten foreign investment in U.S. emerging technology.** On 2 Jun, the USCC (美中经济与安全评估委员会) published a report that urges to define a list of “emerging and foundational” technologies as required by law enacted in 2018. We think this is neutral to Hikvision and Dahua as they are already in the entity list but investment and import of U.S. technologies could become more difficult for Chinese entities.
- Prefer Hikvision (BUY) over Dahua (HOLD).** We maintained Hikvision FY20-23E earnings forecast but lowered Dahua FY21E net profit by 3% to reflect better top-line growth, but offset by lower gross margin. We keep Hikvision target price of RMB75.65 (unchanged 36x FY22 P/E). We cut Dahua target price to RMB24.11 (prior RMB25.35) on unchanged 17x FY22 P/E. We expect valuation gap between Hikvision and Dahua will continue to widen.

Valuation Table

Company	Ticker	Rating	Mkt Cap (US\$ mn)	Price (LC)	TP (LC)	Up/down-side (%)	P/E FY21E	P/E FY22E	ROE FY21E	ROE FY22E
Hikvision	002415 CH	BUY	90,157	61.62	75.65	23%	34.9	29.3	28.3	28.9
Dahua	002236 CH	HOLD	10,456	22.29	24.11	8%	18.3	15.7	17.0	17.0
China Transinfo	002373 CH	NR	3,837	15.50	N/A	17.42	17.4	13.6	10.8	12.4
Thunisoft	300271 CH	NR	2,446	18.84	N/A	24.06	24.1	18.9	9.0	10.3
iFlytek	002230 CH	NR	21,012	60.33	N/A	80.33	80.3	58.7	12.3	14.7
Cambricon Tech	688256 CH	NR	9,637	155.7	N/A	N/A	N/A	N/A	-7.4	-5.0

Source: Company data, Bloomberg, CMBIS estimates

OUTPERFORM
(Maintain)

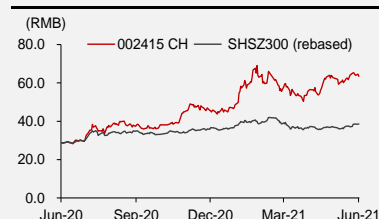
China software & IT services

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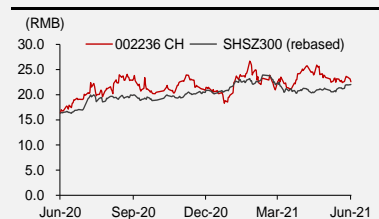
marleyngan@cmbi.com.hk

Hikvision 12-mth Price Performance



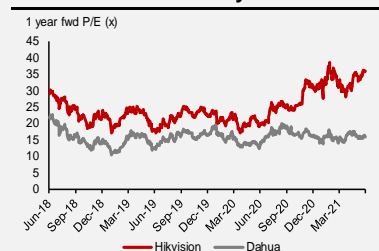
Source: Bloomberg, CMBIS

Dahua 12-mth Price Performance



Source: Bloomberg, CMBIS

Hikvision vs. Dahua 1yr fwd P/E



Source: Bloomberg, CMBIS

Related Report

“Ambarella suggested strong AI demand”
– 4 Mar 2021

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Still a lot of Hisilicon inventories

■ AMBA FY1Q22 results review

- Revenue was at US\$70.1mn (+28% YoY, +13% QoQ), slightly above high-end of original guidance at US\$70mn
- Security camera grew more than 20% sequentially (better than original up low to mid-teens guidance)
- Hikvision and Dahua accounted for below 10% of revenue (low-teens % of FY4Q21 revenue).
- Maintain guidance that CV to be >25% of FY22E total revenue. Majority still come from professional security camera.

■ Other key takeaways from AMBA conference call

- Regarding the security camera SoC, CEO commented that there are tonnes of inventory sitting in customer/ within Hisilicon. Hisilicon is still shipping the products. Some customers gave indication that they can easily survive another 12 months with Hisilicon inventory.
- Ambarella CV products have not penetrated into Hikvision yet as the company is following the direction that not to use U.S. component as much as they can. Hikvision is trying to find out whether they have options with other Chinese suppliers.
- Apart from Dahua, Uniview became the second Chinese professional security camera that launched AI products with Ambarella CV chips.
- Expect revenue contribution from Hikvision and Dahua to shrink.
- Inventories was up by +13% YoY as leadtime continues to increase. Video processors are produced at Samsung's Austin Texas wafer fab but CV products are built in Samsung's Korea foundry.

Figure 1: AMBA FY1Q22 results review

CY	Apr-20	Jan-21	Apr-21			Jul-20	Jul-21		
FY	1Q21	4Q21	1Q22	YoY	QoQ	2Q21	2Q22E	YoY	Comments
US\$mn	actual	actual	actual			actual	guidance*		
Revenue	54.6	62.1	70.1	28%	13%	50.1	75.5	+51%	Auto: +10% QoQ Security: +10% QoQ Others: -20% QoQ
Gross profit	32.0	37.8	43.8	37%	16%				
...Gross margin	58.6%	60.8%	62.4%	3.8%	1.6%	62.4%	61.5%	-0.9 pct pts	Non-GAAP guidance
Non-GAAP net profit	1.3	5.1	8.9	575%	73%				
...Net margin	2.4%	8.3%	12.7%	10.3%	4.4%				

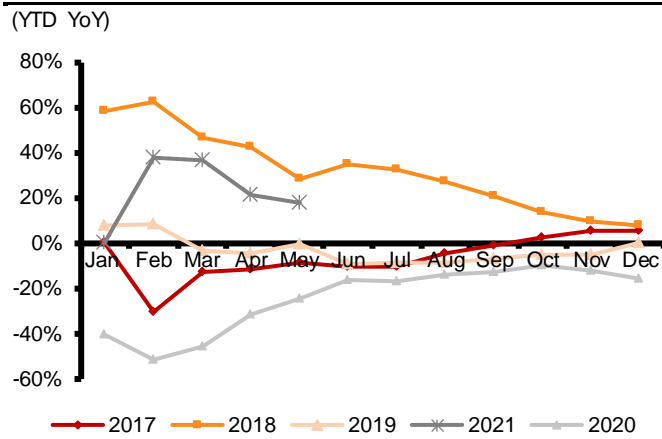
Source: Company data, *mid-point of guidance

Supply chain risk is higher for Dahua over Hikvision

We observed that number of China public security projects bidding recovers starting from Feb 2021. Total number of projects increased at +17% YoY year-to-date. This could suggest Hikvision and Dahua revenue to recover from COVID-19 when public security projects delayed. In FY1Q21, Hikvision and Dahua total revenue was up by +48% YoY and +46% YoY respectively. In FY2Q21E, we expect Hikvision and Dahua to achieve revenue growth of +21% and +18% YoY.

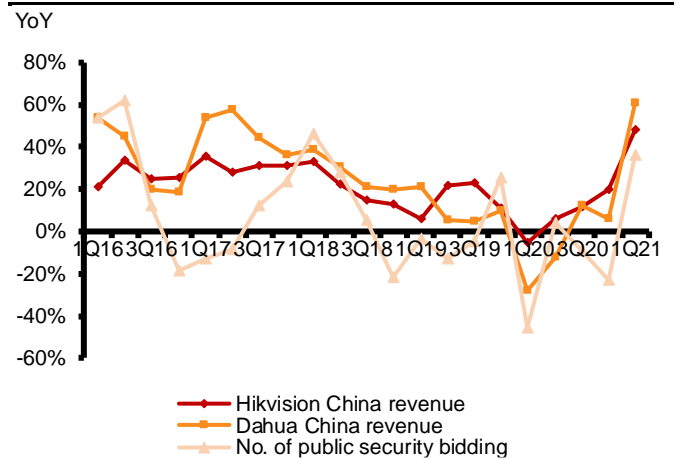
Despite strong demand, we are concerned that Dahua will face more margin pressure with less Hisilicon inventory buffer. We observed that Dahua 1Q21 gross margin was down 8.3 pct pts YoY to 40.9% while that of Hikvision only dropped by 0.5 pct pts YoY to 46.8%. We believe Hikvision has piled up Hisilicon inventory that is enough to survive through 2021 demand. Meanwhile, Dahua has to source from other suppliers at higher ASP in 1Q21 given less inventory on hand.

Figure 2: YTD no. of public security projects bidding increased at +17% YoY



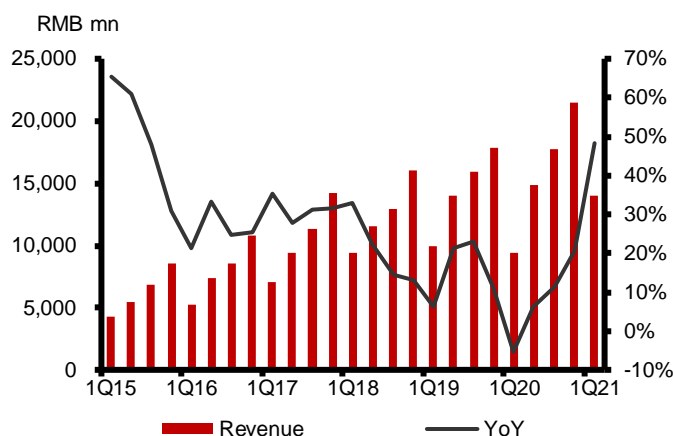
Source: Company data, CMBIS estimates

Figure 3: No. of public security project bidding reflects Hikvision and Dahua revenue trend



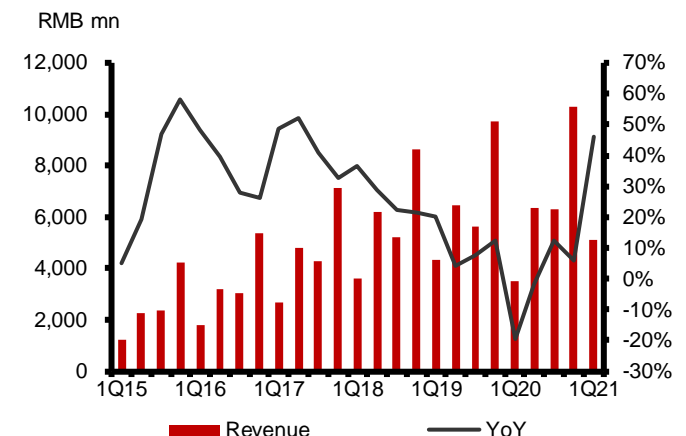
Source: Company data, CMBIS estimates

Figure 4: Hikvision 1Q21 revenue +48% YoY



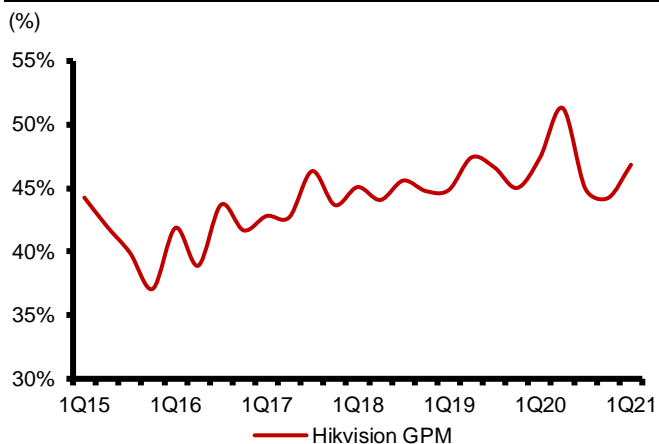
Source: Company data, CMBIS estimates

Figure 5: Dahua 1Q21 revenue +46% YoY



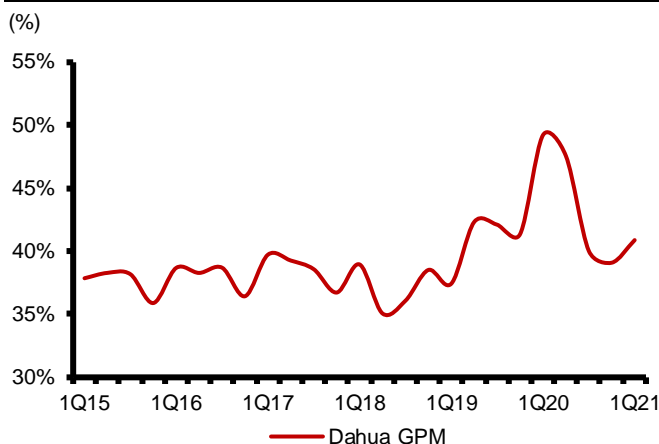
Source: Company data, CMBIS estimates

Figure 6: Hikvision 1Q21 GPM -0.5 pct pts YoY



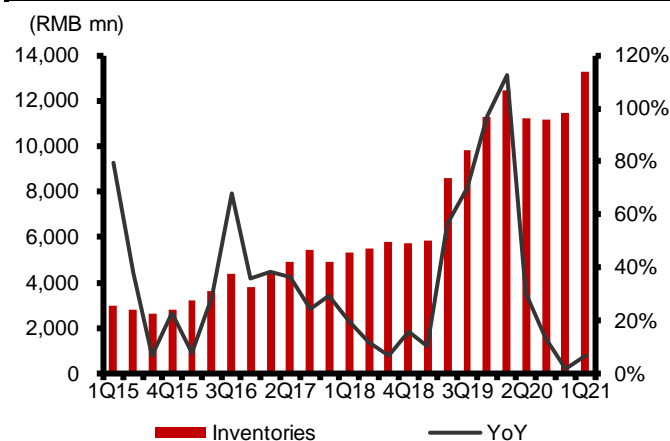
Source: Company data, CMBIS estimates

Figure 7: Dahua 1Q21 GPM -8.3 pct pts YoY



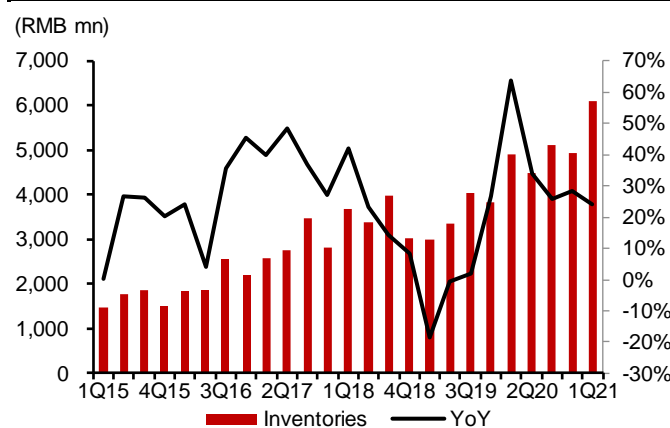
Source: Company data, CMBIS estimates

Figure 8: Hikvision inventory



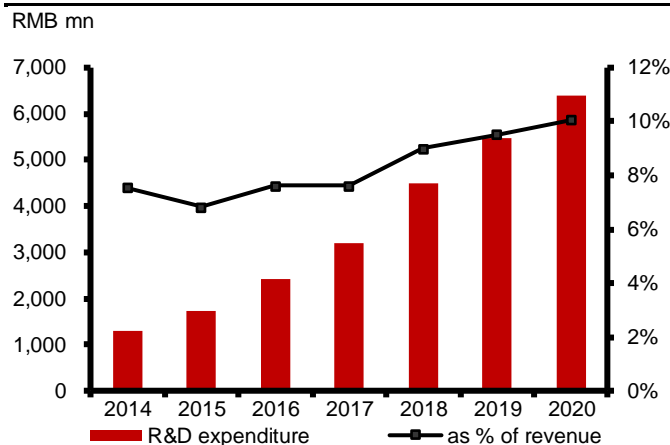
Source: Company data, CMBIS estimates

Figure 9: Dahua inventory



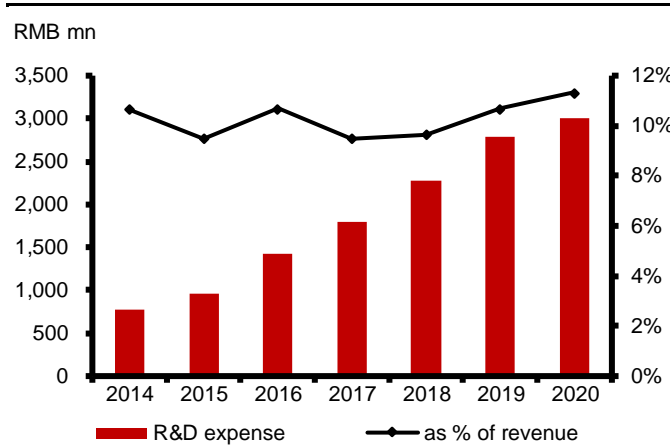
Source: Company data, CMBIS estimates

Figure 10: Hikvision R&D expense and ratio



Source: Company data, CMBIS estimates

Figure 11: Dahua R&D expense and ratio



Source: Company data, CMBIS estimates

Potentially broader U.S. technology export control

On 2 Jun 2021, the U.S.-China Economic and Security Review Commission published a report titled “Unfinished Business: Export Control and Foreign Investment Reforms” that said the Bureau of Industry and Security (BIS) had failed to carry out its responsibilities in defining a list of “emerging and foundational” technologies as required by FIRRMA and ECA passed in 2018. FIRRMA and ECA were enacted to tighten U.S. export policies and the process for screening foreign investment.

In Nov 2018, BIS published an advance notice to form an emerging technologies list identifying 45 sample technologies under 14 broad categories (See Appendix). The list targets to cover emerging technologies that are not listed on Commerce Control List yet but could have national security impacts. As of today, the list has not been finalized.

U.S. existing export control framework:

- (1) Export Administration Regulations (EAR) 出口管制条例 and,
 - a. Prohibits the export, re-export and re-transfer of **all** >25% U.S.-origin content items to companies on the Entity List. Meanwhile, targeting companies not on the entity list, BIS regulates exports of dual-use and less sensitive military items by placing them on its Commerce Control List (CCL) 商业管制清单. Such items require a license prior to exportation.
- (2) International Traffic in Arms Regulations (ITAR) 国际武器贸易条例.

Our view

Existing export control measures target specific end users such as Huawei, Hikvision, etc. by putting these companies in Entity List. However, finalizing the earlier proposed “emerging and foundational technologies” list could cover a much broader scope of products under CCL. Investment and import of U.S. technologies will become more difficult for Chinese entities. We view this **neutral to Hikvision and Dahua** as they are already being put in the entity list that all items with >25% U.S. content are not allowed to be shipped, unless export license is obtained.

Figure 12: U.S. export control regulations enacted in 2018

Name	Details
Foreign Investment Risk Review Modernization Act (FIRRMA) 外国投资风险评估现代化法案	Committee on Foreign Investments in the U.S. (CIFIUS) reviews transactions to determine whether proposed foreign investments in a U.S. business would impart U.S. national security. FIRRMA expands CIFIUS jurisdiction to non-controlling transactions if the investment involves: <ol style="list-style-type: none"> (i) Critical Technologies: items or technology that are subject to export controls under either the International Traffic in Arms Regulations (ITAR) or the Export Administration Regulations (EAR), as well as certain undefined "emerging and foundational technologies". (ii) Critical Infrastructure: presumably include defense and military, energy, telecommunication, and financial infrastructure, among others. (iii) Sensitive personal data of U.S. citizens: Broadly include consumer data, as well as information regarding financial services, insurance, and healthcare.
Export Control Reform Act (ECRA) 出口管制改革法	ECRA is a modification of the existing U.S. Export Administration Regulations (EAR). The Act aims to restrict the export of "emerging and foundational technologies" that can potentially be used for civilian and military purposes and that have not been subject to export control in the past. It mandates that the President shall establish and maintain lists of items that should be subject to the same rules as other items currently on the CCL (Commerce Control List).

Source: U.S. – China Economic and Security Review Commission

Earnings revision

Hikvision

We have not changed our earnings forecast for Hikvision.

Figure 13: Hikvision CMBI estimates vs. consensus

RMB mn	2020E			2021E			2022E		
	CMBI	Street	Diff (%)	CMBI	Street	Diff(%)	CMBI	Street	Diff(%)
Sales	77,684	77,002	1%	89,592	90,986	-2%	102,261	106,601	-4%
Gross profit	36,391	35,341	3%	42,300	42,035	1%	48,816	49,404	-1%
OP Profit	16,801	18,392	-9%	19,768	22,371	-12%	23,264	26,415	-12%
PBT	18,921	18,945	-0%	22,102	22,897	-3%	25,853	27,076	-5%
Net profit	16,493	16,880	-2%	19,634	20,467	-4%	22,811	24,211	-6%
EPS	1.77	1.77	-0%	2.10	2.14	-2%	2.44	2.54	-4%
Margins									
GM	46.8%	45.9%	95 bps	47.2%	46.2%	101 bps	47.7%	46.3%	139 bps
OPM	21.6%	23.9%	-226 bps	22.1%	24.6%	-252 bps	22.7%	24.8%	-203 bps
PBT margin	24.4%	24.6%	-25 bps	24.7%	25.2%	-50 bps	25.3%	25.4%	-12 bps
Net margin	21.2%	21.9%	-69 bps	21.9%	22.5%	-58 bps	22.3%	22.7%	-40 bps

Source: Company data, CMBIS, Bloomberg

Dahua

We raised FY21E revenue by 3% to reflect better public security demand but cut net profit by 3% as gross margin is expected to be under pressure with chip supply shortage and less inventory buffer.

Figure 14: Dahua earnings revision

RMB mn	2021E			2022E			2023E		
	New	Old	Diff(%)	New	Old	Diff(%)	New	Old	Diff(%)
Sales	31,272	30,473	3%	34,926	34,514	1%	39,966	38,990	3%
Gross profit	13,022	13,024	-0%	15,062	14,619	3%	16,989	16,996	-0%
OP Profit	3,752	3,806	-1%	4,655	4,548	2%	5,430	5,380	1%
PBT	4,008	4,183	-4%	5,003	4,918	2%	5,763	5,725	1%
Net profit	3,648	3,774	-3%	4,480	4,468	0%	5,238	5,154	2%
EPS	1.22	1.26	-3%	1.50	1.49	0%	1.75	1.72	2%
Margins									
GM	41.6%	42.9%	-124 bps	43.1%	41.9%	118 bps	42.5%	42.4%	15 bps
OPM	12.0%	11.8%	23 bps	13.3%	12.2%	114 bps	13.6%	13.2%	41 bps
PBT margin	12.8%	16.3%	-345 bps	14.3%	13.4%	91 bps	14.4%	14.2%	17 bps
Net margin	11.7%	15.0%	-338 bps	12.8%	12.2%	58 bps	13.1%	12.9%	16 bps

Source: Company data, CMBIS

Figure 15: Dahua CMBI estimates vs. consensus

RMB mn	2021			2022			2023		
	CMBI	Street	Diff	CMBI	Street	Diff	CMBI	Street	Diff
Sales	31,272	31,972	-2%	35,810	37,768	-5%	39,966	44,480	-10%
Gross profit	13,022	13,527	-4%	15,068	16,079	-6%	16,989	19,129	-11%
OP Profit	3,752	4,940	-24%	4,378	5,928	-26%	5,430	7,137	-24%
PBT	4,008	4,699	-15%	4,715	5,680	-17%	5,763	6,947	-17%
Net profit	3,648	4,291	-15%	4,248	5,118	-17%	5,238	6,280	-17%
EPS	1.2	1.5	-17%	1.4	1.8	-20%	1.7	2.1	-17%
Margins									
GM	41.6%	42.3%	-67 bps	42.1%	42.6%	-50 bps	42.5%	43.0%	-50 bps
OPM	12.0%	15.4%	-345 bps	12.2%	15.7%	-347 bps	13.6%	16.0%	-246 bps
PBT margin	12.8%	14.7%	-188 bps	13.2%	15.0%	-187 bps	14.4%	15.6%	-120 bps
Net margin	11.7%	13.4%	-176 bps	11.9%	13.6%	-169 bps	13.1%	14.1%	-101 bps

Source: Company data, CMBIS, Bloomberg

Valuation

Hikvision (002145 CH, BUY, TP RMB75.65)

We have not changed our earnings forecast and maintain target price of RMB75.65, based on 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 RMB24.11)

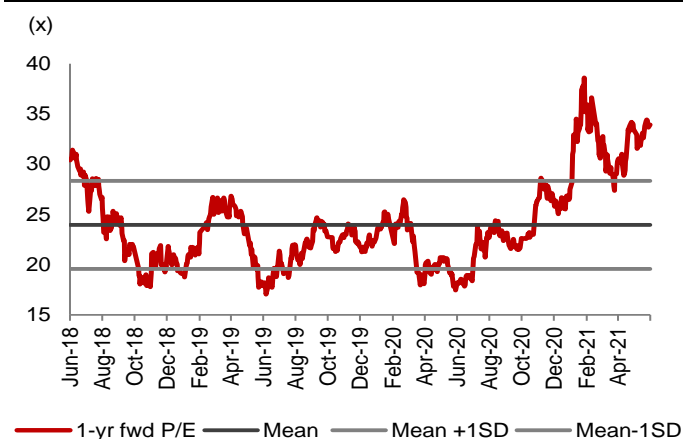
We cut our target price to RMB24.11 (prior RMB25.35), based on unchanged 17x FY22 P/E, in-line with its 3-year mean. We are less positive on Dahua FY21E gross margin amid chip shortage with less Hisilicon inventory buffer than Hikvision. We expect Hikvision valuation gap will continue to widen.

Figure 16: 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	002145 CH	BUY	90,157	61.62	75.65	34.9	29.3	28.3	28.9	17%	19%	
Dahua	002236 CH	HOLD	10,456	22.29	24.11	18.3	15.7	17.0	17.0	15%	10%	
China Transinfo	002373 CH	NR	3,837	15.50	N/A	17.4	13.6	10.8	12.4	17%	26%	
Thunisoft	300271 CH	NR	2,446	18.84	N/A	24.1	18.9	9.0	10.3	30%	28%	
iFlytek	002230 CH	NR	21,012	60.33	N/A	80.3	58.7	12.3	14.7	32%	36%	
Cambricon Tech	688256 CH	NR	7,722	123.25	N/A	N/A	N/A	-8.0	-7.0	25%	-18%	
						Mean	35.0	27.2	11.6	12.7	23%	17%
						Median	24.1	18.9	11.6	13.6	21%	23%

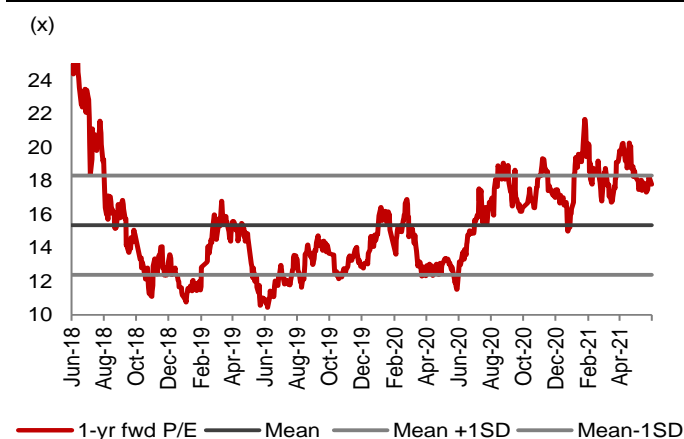
Source: Bloomberg, CMBIS estimates

Figure 17: Hikvision 12M forward P/E chart



Source: Company data, CMBIS, Bloomberg

Figure 18: Dahua 12M forward P/E chart



Source: Company data, CMBIS, Bloomberg

Appendix: Emerging Technologies and Chinese Strategic Sectors

Figure 19: Initial list of emerging technologies to be restricted, proposed by U.S. Department of Commerce in 2018 and the related Chinese Strategic Sectors mentioned in Made in China (2025)

Proposed Emerging Technologies (2018)	Made in China 2025 (2025) Industrial Priorities
Biotechnology <ul style="list-style-type: none"> • Nanobiology • Synthetic biology • Genomic and genetic engineering • Neurotech 	Biopharmaceuticals and High-Tech Medical Devices
AI and machine learning technology, such as <ul style="list-style-type: none"> • Neural networks and deep learning • Evolution and genetic computation • Reinforcement learning • Computer vision • Expert systems • Speech and audio processing • Natural language processing • Planning • Audio and video manipulation technologies • AI cloud technologies • AI chipsets 	Next-Generation IT Integrated Circuits
Microprocessor technology, such as: <ul style="list-style-type: none"> • Systems-on-Chip (SoC) • Stacked Memory on Chip 	
Position, Navigation, and Timing (PNT) technology	
Hypersonics, such as: <ul style="list-style-type: none"> • Flight control algorithms • Propulsion technologies • Thermal protection systems • Specialized materials 	Space and Aviation Maritime Equipment and High-Tech Ships
Advanced computing technology, such as: <ul style="list-style-type: none"> • Memory-centric logic 	
Data analytics technology, such as: <ul style="list-style-type: none"> • Visualization • Automated analysis algorithms • Context-aware computing 	
Brain-computer interfaces, such as: <ul style="list-style-type: none"> • Neural-controlled interfaces • Mind-machine interfaces • Direct neural interfaces • Brain-machine interfaces 	High-End Computerized Machines and Robots
Quantum information and sensing, such as: <ul style="list-style-type: none"> • Quantum computing • Quantum encryption • Quantum sensing 	
Robotics, such as: <ul style="list-style-type: none"> • Micro-drone and micro-robotic systems • Swarming technology • Self-assembling robots • Molecular robotics • Robot compliers • Smart Dust 	

 Logistics technology, such as:

- Mobile electric power
- Modeling and simulation
- Total asset visibility
- Distribution-Based Logistics Systems

Advanced Railway Transportation Equipment

New Energy and Energy-Saving Vehicles

Energy Equipment

Agricultural Machines

Advanced materials, such as:

- Adaptive camouflage
- Functional textiles
- Biomaterials

New Materials

Additive manufacturing

Advanced surveillance technologies, such as:

- Faceprint and voiceprint technologies

 Source: U.S. – China Economic and Security Review Commission

Financial Summary – Hikvision (002415 CH)

Income statement

YE 31 Dec (RMB mn)	FY19	FY20	FY21E	FY22E	FY23E
Revenue	57,658	63,503	77,684	89,592	102,26
Cost of sales	(31,140)	(33,958)	(41,293)	(47,292)	(53,445)
Gross profit	26,518	29,546	36,391	42,300	48,816
Selling exp	(7,257)	(7,378)	(9,137)	(10,318)	(11,665)
Admin exp	(1,822)	(1,790)	(2,188)	(2,517)	(2,819)
R&D exp	(5,484)	(6,379)	(7,741)	(9,109)	(10,395)
Other operating exp.	(417)	(416)	(524)	(588)	(673)
Operating profit	11,538	13,583	16,801	19,768	23,264
Finance costs	640	(396)	372	446	768
Other non-oper exp.	1,578	2,086	1,748	1,887	1,821
Pre-tax profit	13,755	15,273	18,921	22,102	25,853
Income tax expense	(1,290)	(1,595)	(1,997)	(2,100)	(2,585)
Minority interests	(51)	(293)	(432)	(368)	(456)
Net profit to S/H	12,415	13,386	16,493	19,634	22,811

Cash flow summary

YE 31 Dec (RMB mn)	FY19	FY20	FY21E	FY22E	FY23E
Net profit	12,415	13,386	16,493	19,634	22,811
Depreciation/amortization	699	845	1,489	1,614	1,691
Change in working capital	(7,153)	597	(12,456)	203	9,589
Others	1,807	1,260	891	368	456
Net cash from operating	7,768	16,088	6,417	21,818	34,548
Capex	(1,927)	(2,004)	(2,199)	(2,045)	(2,094)
Other	4	(551)	41	0	0
Net cash from investing	(1,923)	(2,555)	(2,158)	(2,045)	(2,094)
Net borrowings	187	2,049	1,451	869	(2,623)
Dividend paid	(5,609)	(6,542)	(7,475)	(9,210)	(10,964)
Other	(14)	(189)	(530)	(368)	(456)
Net cash from financing	(5,436)	(4,681)	(6,554)	(8,709)	(14,043)
Net change in cash	408	8,852	(2,295)	11,064	18,411
Cash at beginning of the year	26,552	27,072	35,460	33,127	44,191
Exchange difference	111	(464)	(38)	0	0
Cash at the end of the year	27,072	35,460	33,127	44,191	62,602

Balance sheet

YE 31 Dec (RMB mn)	FY19	FY20	FY21E	FY22E	FY23E
Current assets	64,026	74,763	81,685	100,08	125,21
Cash & equivalents	27,072	35,460	33,127	44,191	62,602
Account receivables	23,146	24,098	32,171	35,848	40,126
Inventory	11,268	11,478	12,268	15,446	17,025
Other current assets	2,540	3,727	4,118	4,600	5,464
Non-current assets	11,332	13,939	14,745	15,177	15,580
PPE	6,423	7,301	8,028	8,460	8,864
Intangible assets	1,407	1,634	1,626	1,626	1,626
Other non-current assets	3,502	5,003	5,090	5,090	5,090
Total assets	75,358	88,702	96,430	115,257	140,791
Current liabilities	23,521	31,225	28,412	36,337	50,763
ST borrowings	2,726	7,507	7,902	8,287	6,403
Account payables	13,940	14,631	9,703	15,940	30,292
Accrued expense	5,941	6,173	8,179	8,380	9,379
Other current liabilities	914	2,914	2,629	3,729	4,689
Non-current liabilities	6,364	2,997	4,252	4,736	3,998
LT borrowings	4,604	1,961	2,999	3,483	2,744
Other non-current liabilities	1,760	1,036	1,253	1,253	1,253
Total liabilities	29,885	34,222	32,664	41,073	54,760
Share capital	9,345	9,343	9,343	9,343	9,343
Capital surplus	4,127	5,179	5,240	5,240	5,240
Retained earnings	33,634	40,479	49,497	59,921	71,768
Other reserves	(2,202)	(1,207)	(1,278)	(1,278)	(1,278)
Minority interest	569	685	962	962	962
Total equity	44,904	53,794	62,803	73,227	85,074
Total liabilities and	74,789	88,016	95,467	114,29	139,83

Key ratios

YE 31 Dec	FY19	FY20	FY21E	FY22E	FY23E
Revenue mix					
Front-end equipment	47%	45%	45%	44%	43%
Back-end equipment	13%	11%	11%	11%	10%
Central control equipment	15%	16%	15%	15%	14%
New Stuff	8%	10%	11%	14%	17%
Construction	2%	3%	2%	2%	2%
Others	15%	16%	15%	14%	14%
Growth (%)					
Revenue	16%	10%	22%	15%	14%
Operating profit	13%	18%	24%	18%	18%
EPS	8%	8%	23%	19%	16%
Profit & loss ratio (%)					
Gross margin	46.0%	46.5%	46.8%	47.2%	47.7%
Operating margin	20.0%	21.4%	21.6%	22.1%	22.7%
Net profit margin	21.5%	21.1%	21.2%	21.9%	22.3%
Balance sheet ratio					
Current ratio (x)	2.72	2.39	2.87	2.75	2.47
Receivable turnover days	137	136	132	139	136
Inventory turnover days	54	65	56	56	58
Payable turnover days	163	157	86	123	108
Net debt to equity	net cash	net cash	net cash	net cash	net cash
Profitability (%)					
ROE	30.1%	27.1%	28.3%	28.9%	28.8%
ROIC	45.1%	42.7%	41.6%	41.7%	54.5%
Per share data (RMB)					
EPS (RMB)	1.33	1.43	1.77	2.10	2.44
DPS (RMB)	0.60	0.70	0.80	0.99	1.17
BVPS (RMB)	4.81	5.76	6.72	7.84	9.11

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	31,272	35,810	39,966
Cost of sales	(15,396)	(15,164)	(18,250)	(20,742)	(22,977)
Gross profit	10,753	11,302	13,022	15,068	16,989
Selling exp	(3,953)	(4,291)	(4,851)	(5,556)	(6,011)
Admin exp	(741)	(785)	(886)	(1,025)	(1,111)
R&D exp	(2,794)	(2,998)	(3,285)	(3,862)	(4,173)
Other operating exp.	(183)	(162)	(248)	(248)	(264)
Operating profit	3,083	3,066	3,752	4,378	5,430
Finance costs	33	58	(46)	(23)	(17)
Other non-oper exp.	383	1,125	303	361	350
Pre-tax profit	3,499	4,249	4,008	4,715	5,763
Income tax expense	(338)	(314)	(332)	(417)	(476)
Minority interests	27	(32)	(28)	(51)	(49)
Net profit to S/H	3,188	3,903	3,648	4,248	5,238

Cash flow summary

YE 31 Dec (RMB mn)	FY19	FY20	FY21E	FY22E	FY23E
Net profit	3,188	3,903	3,648	4,248	5,238
Depreciation/amortization	297	331	662	662	662
Change in working capital	(28)	(186)	(6,641)	(2,779)	(600)
Others	(1,857)	354	243	51	49
Net cash from operating	1,601	4,402	(2,088)	2,181	5,348
Capex	(531)	(642)	(690)	(537)	(599)
Other	(309)	452	(979)	0	0
Net cash from investing	(840)	(190)	(1,669)	(537)	(599)
Net borrowings	(1,462)	715	1,782	164	299
Dividend paid	(300)	(399)	(803)	(750)	(874)
Other	(120)	53	(47)	(51)	(49)
Net cash from financing	(1,882)	369	932	(637)	(624)
Net change in cash	(1,121)	4,580	(2,825)	1,007	4,125
Cash at beginning of the year	4,160	3,084	7,472	4,624	5,631
Exchange difference	45	(193)	(22)	0	0
Cash at the end of the year	3,084	7,472	4,624	5,631	9,757

Balance sheet

YE 31 Dec (RMB mn)	FY19	FY20	FY21E	FY22E	FY23E
Current assets	22,975	29,112	32,878	38,677	44,370
Cash & equivalents	3,084	7,472	4,624	5,631	9,757
Account receivables	13,241	13,090	19,095	22,071	23,379
Inventory	3,840	4,928	5,534	7,260	7,458
Other current assets	2,810	3,622	3,625	3,715	3,776
Non-current assets	6,589	7,483	8,891	8,766	8,703
PPE	1,958	2,680	2,937	2,948	3,022
Intangible assets	492	482	570	434	298
Other non-current assets	4,139	4,321	5,384	5,384	5,384
Total assets	29,565	36,595	41,768	47,443	53,073
Current liabilities	12,531	14,662	15,489	17,502	18,469
ST borrowings	427	402	1,461	1,461	1,461
Account payables	8,098	9,703	9,434	10,816	11,779
Accrued expense	3,935	3,676	3,490	4,121	4,125
Other current liabilities	71	881	1,105	1,105	1,105
Non-current liabilities	1,057	1,729	2,609	2,773	3,072
LT borrowings	154	878	1,681	1,845	2,144
Other non-current liabilities	904	851	928	928	928
Total liabilities	13,588	16,391	18,098	20,275	21,541
Share capital	3,004	2,996	2,996	2,996	2,996
Capital surplus	1,883	1,990	2,587	2,587	2,587
Retained earnings	11,802	15,309	18,154	21,651	26,015
Other reserve	(1,045)	(521)	(509)	(509)	(509)
Minority interest	333	431	443	443	443
Total equity	15,643	19,773	23,228	26,725	31,089
Total liabilities and	29,231	36,164	41,326	47,000	52,630

Key ratios

YE 31 Dec	FY19	FY20	FY21E	FY22E	FY23E
Revenue mix					
Domestic	63%	60%	62%	62%	63%
Overseas	37%	40%	38%	38%	37%
Growth (%)					
Domestic	9%	-3%	22%	14%	13%
Overseas	13%	8%	12%	15%	10%
Revenue	10%	1%	18%	15%	12%
Gross profit	22%	5%	15%	16%	13%
Operating profit	33%	-1%	22%	17%	24%
EPS	26%	23%	-7%	16%	23%
Profit & loss ratio (%)					
Gross margin	41%	43%	42%	42%	43%
Operating margin	11.8%	11.6%	12.0%	12.2%	13.6%
Net profit margin	12.2%	14.7%	11.7%	11.9%	13.1%
Balance sheet ratio					
Current ratio (x)	1.83	1.99	2.12	2.21	2.40
Receivable turnover days	180	182	188	210	208
Inventory turnover days	48	60	61	65	67
Payable turnover days	109	123	112	103	103
Net debt to equity	net cash	net cash	net cash	net cash	net cash
Profitability (%)					
ROE	22.6%	22.0%	17.0%	17.0%	18.1%
ROIC	26.3%	24.0%	21.0%	18.4%	21.4%
Per share data (RMB)					
EPS (RMB)	1.06	1.30	1.22	1.42	1.75
DPS (RMB)	0.10	0.13	0.27	0.25	0.29
BVPS (RMB)	5.21	6.60	7.75	8.92	10.38

Source: Company data, CMBIS estimates

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