

China AI

AI leaders taking different expansion paths

Smart City is a clear driver to China AI. We expect a slower public security market growth in 2022E to +10-15% YoY (vs. >20% YoY in 2021) and that delivery schedule of To-Gov't projects could be lengthened given weakening macro economy. Despite a softer 2022 outlook, AI leaders remain aggressive in expansion. Hikvision announced RMB5.3bn plan to expand in thermal sensor/robotics while SenseTime Lingang AI data center commenced operation in Jan 2022 (RMB7bn to be spent on server in coming 5 years). **China AI pecking order: Hikvision (BUY) > SenseTime (BUY) > Dahua (HOLD).**

■ **4Q21 public security projects bidding remained resilient but delivery schedule could be lengthened.** We observed China public security projects bidding number growth remained strong in 4Q21 at +41% YoY (vs. +20% YoY in 3Q21), according to CCGP. Total number of projects grew at +24% YoY in 2021. Looking into 2022, although public security bidding demand looks intact, we believe delivery schedule for To-Gov't projects will be lengthened given weakening macro economy. We expect public security market growth slowed to +10-15% YoY (vs. >20% YoY in 2021).

■ **AI leaders continue to spend big in 2022.** Since the beginning of 2022, Hikvision has announced investment plans up to RMB5.3bn. The spending is related to the expansion of "new businesses" including thermal technology and robotics. Intelligent camera applications have expanded with sensor/ AI technology. We like Hikvision as the company possesses both hardware and software technology that better fit customers' demand. Meanwhile, SenseTime announced that its Shanghai Lingang AIDC has commenced operation on 24 Jan. The designed computing power (3.74 exaFLOPS) can allow AI model training with 100bn parameters. To fill up the data center, we expect SenseTime to spend RMB7bn in server procurement in the coming 5 years. We are less positive in SenseTime AIDC commercialization given 1) severe competition with existing cloud service vendors that provide GPU-based computing power for AI training or inference and 2) applications that require such a large amount of computing capacity could be limited for now.

■ **Pecking order: Hikvision (BUY) > SenseTime (BUY) > Dahua (HOLD).** For 4Q21, we expect Hikvision/ Dahua to deliver +15%/ +8% YoY core profit growth. We are less positive on Dahua margin trend than consensus (CMBI 4Q21 est. 38.7% vs. Consensus 41.7%) as Dahua has less inventory buffer. Hikvision remains our top pick in China AI (valuation is attractive at 1-SD below 3-year mean). We largely maintained Hikvision and Dahua FY21-23E earnings forecast (within 3% change) but we trimmed target price on lower multiple to reflect increasing uncertainty as macro weakens (Hikvision TP RMB76.25 → RMB62.06, Dahua TP RMB24.37 → RMB20.89).

Valuation Table

| Company | Ticker | Rating | Mkt Cap (US\$ mn) | Price (LC) | TP (LC) | Up/down-side (%) | EV/sales | | ROE | |
|-----------------|-----------|--------|-------------------|------------|---------|------------------|----------|-------|-------|-------|
| | | | | | | | FY22E | FY22E | FY21E | FY22E |
| Hikvision | 002415 CH | BUY | 68,394 | 46.60 | 62.06 | 33% | 21.3 | 4.4 | 28.5 | 28.8 |
| Dahua | 002236 CH | HOLD | 9,189 | 19.51 | 20.89 | 7% | 11.4 | 1.6 | 18.5 | 19.2 |
| SenseTime | 20 HK | BUY | 29,151 | 6.78 | 8.08 | 19% | N/A | 33.2 | N/A | N/A |
| Cambricon Tech | 688256 CH | NR | 4,977 | 79.10 | N/A | N/A | N/A | 28.0 | N/A | N/A |
| China Transinfo | 002373 CH | NR | 3,523 | 14.17 | N/A | N/A | 16.8 | 1.5 | 8.2 | 9.7 |
| iFlytek | 002230 CH | NR | 17,024 | 46.55 | N/A | N/A | 44.3 | 4.7 | 12.2 | 14.4 |

Source: Company data, Bloomberg, CMBIS estimates

OUTPERFORM
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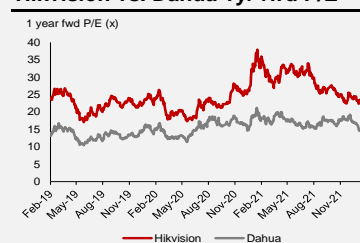
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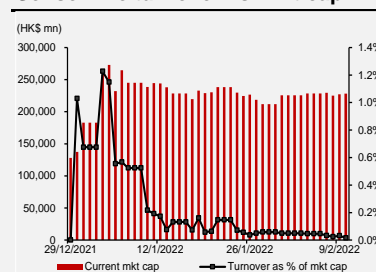
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Hikvision vs. Dahua 1yr fwd P/E



Source: Bloomberg, CMBIS

SenseTime turnover vs. mkt cap



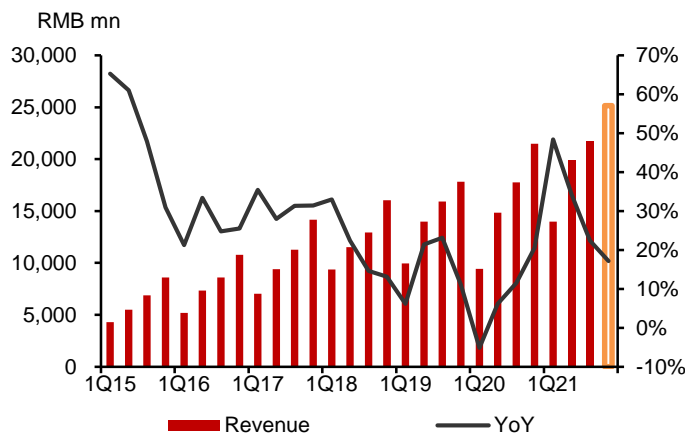
Source: Bloomberg, CMBIS

Related Reports

- SenseTime (20 HK) "Unrivaled computer vision leader in China" – 2 Feb 2022
- Hikvision (002415 CH) "High inventory buffer" – 25 Oct 2021

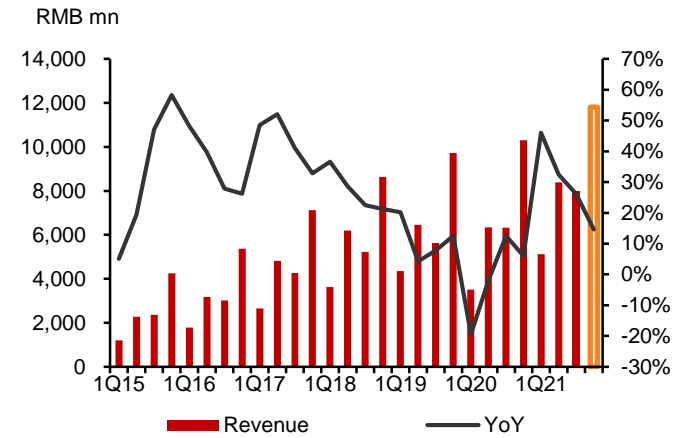
Focus Charts

Figure 1: We expect Hikvision 4Q21 revenue to grow +17% YoY to RMB25.2bn



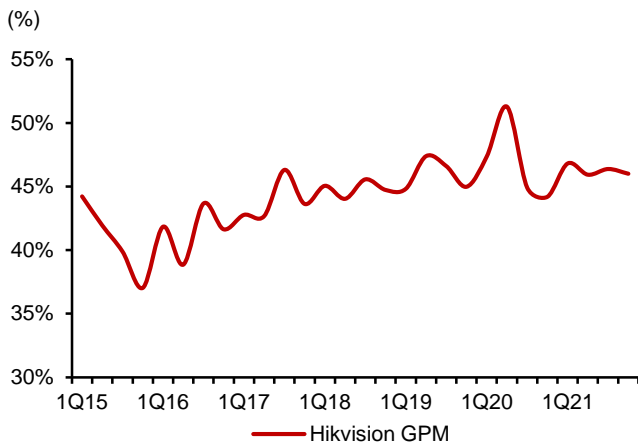
Source: Company data, CMBIS estimates

Figure 2: We expect Dahua 4Q21 revenue to grow +15% YoY to RMB11.8bn



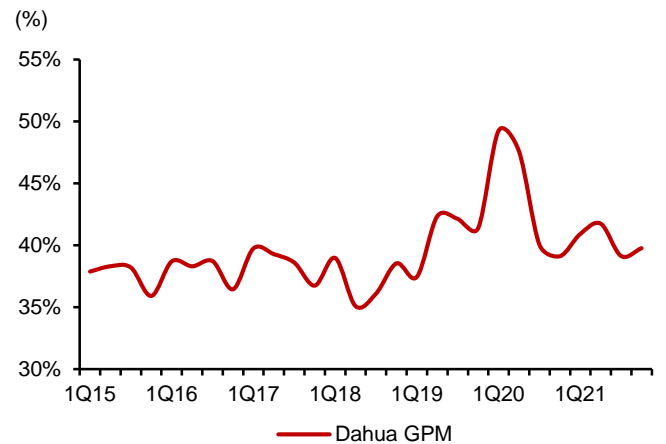
Source: Company data, CMBIS estimates

Figure 3: Our Hikvision 4Q21E GPM of 46.0% is higher than consensus of 44.7%



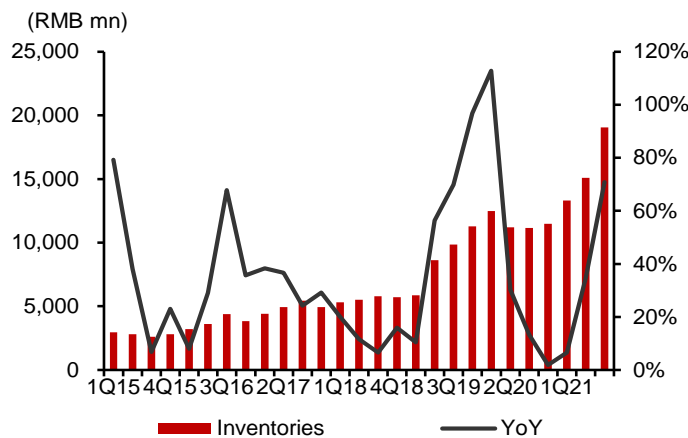
Source: Company data, CMBIS

Figure 4: Our Dahua 4Q21E GPM of 38.7% is lower than consensus of 41.7%



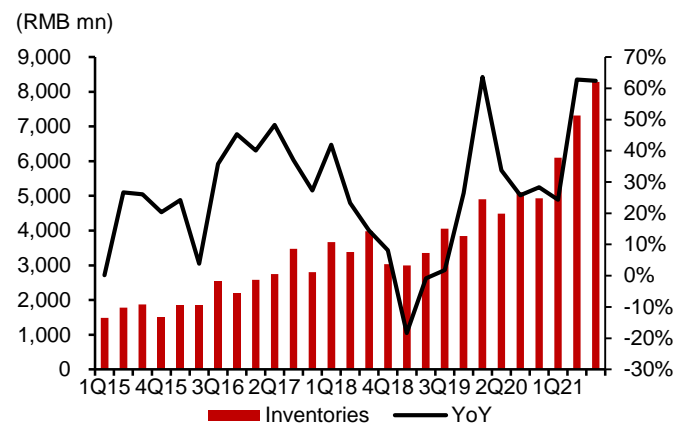
Source: Bloomberg, Company data, CMBIS

Figure 5: Hikvision inventory



Source: Company data, CMBIS

Figure 6: Dahua inventory



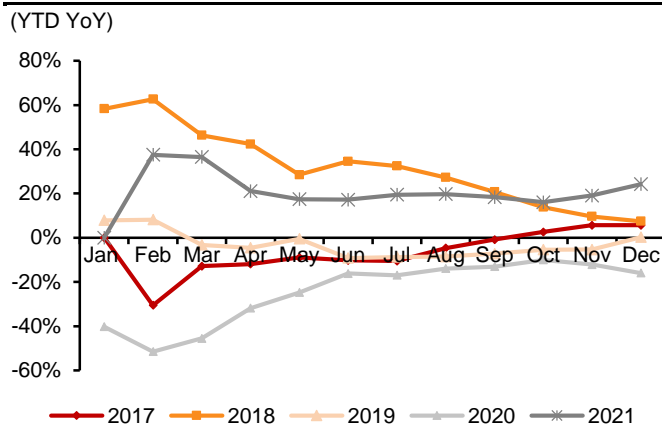
Source: Company data, CMBIS

Public security demand remains resilient but delivery schedule could be lengthened

We observed that China public security projects tendering and bidding number continued to be strong in 4Q21 at +41% YoY (+20% YoY in 3Q21), according to Center of China Government Procurement (CCGP). Total number of projects increased at +24% YoY in 2021. Looking into 2022, although public security demand remains resilient, we believe market growth could slow down to +10-15% YoY (vs. >20% YoY in 2021) as macro environment weakens.

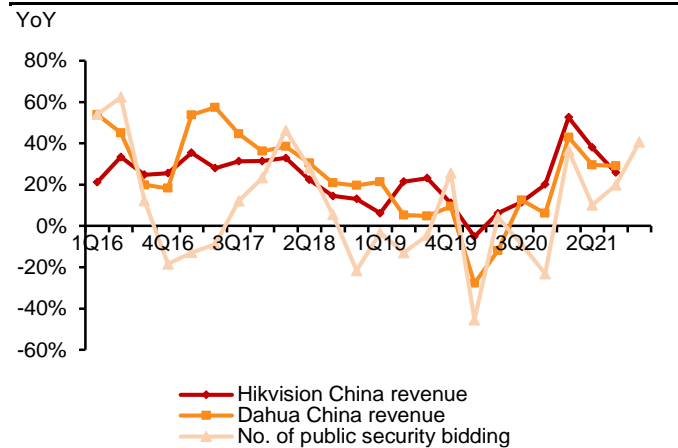
Public security is a clear driving force to China AI adoption. In FY1H21, Hikvision/ Dahua/ SenseTime derived 26%/ 21%/ 40% from To-G (or Smart City) business respectively. Given uncertainty in To-G business delivery, we expect Hikvision/ Dahua to achieve a sequentially slower revenue growth of +17%/ 15% YoY in 4Q21 (vs. +22%/ +26% YoY in 3Q21).

Figure 7: 2021 no. of public security projects bidding increased at +24% YoY



Source: CCGP, CMBIS

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



Source: CCGP, Company data, CMBIS estimates

Figure 9: To-Gov't projects account for 20-40% of AI leaders revenue

| | Hikvision 002415 CH | Dahua 002236 CH | SenseTime 20 HK |
|-----------------------|------------------------|--------------------|--------------------|
| FY20 (RMB mn) | | | |
| Revenue | 63,503 | 26,466 | 3,446 |
| - To G revenue ^ | 16,304 | 5,673 | 1,369 |
| ...as % of revenue | 26% | 21% | 40% |
| No. of R&D staff ` | 20,597 | 8,998 | 3,593 |
| R&D spending | 6,379 | 2,998 | 2,454 |
| ...as % of revenue | 10% | 11% | 71% |
| Market share (1H21) * | 7% | 2% | 21% |

Source: IDC, CMBIS

^ SenseTime includes Smart City business

` as of 30 Jun 2021 for SenseTime

* China computer vision software market share, IDC

AI leaders expanding in different paths

Hikvision

Since the beginning of 2022, Hikvision has already announced investment plans amounted to RMB5.3bn. We observed that the majority of the investment goes to “new businesses” including the R&D centers/ production plants for HikMicro Sensing Technology (海康微影), as well as Hikrobot Technology (海康机器人). Applications of intelligent camera have expanded with sensor and AI technology. We like Hikvision for its 1) expanding TAM, 2) improving margins and 3) technology capabilities in both hardware and software.

Figure 10: Investments announced by Hikvision since 2022

| Announcement date | Details | Amount (RMB mn) |
|-------------------|--------------------------------------------------------------------------------------------|-----------------|
| 19-Jan-22 | 红热成像整机产品产业化基地 (R&D center and office building for Hangzhou HikMicro Sensing Technology) | 1,280.18 |
| 19-Jan-22 | 全球仓储物流中心 (Global storage and logistic center) | 1,286.05 |
| 19-Jan-22 | 海康机器人产品产业化基地 (R&D center and office building for Hikrobot Technology) | 1,166.1 |
| 19-Jan-22 | 海康机器人智能制造(桐庐)基地 (Production plant for Hikrobot Technology) | 1,534.22 |
| Total | | 5,266.55 |

Source: Company data, CMBIS

SenseTime

On 24 Jan 2022, SenseTime announced that its next-generation AI data center (AIDC) located in the Lingang New Area, Shanghai, has commenced operation. The designed computing capacity of 3.74 exaFLOPS. The superior computing power allows the company to train AI models with 100bn parameters. By just filling up the space in this Lingang AIDC, we believe SenseTime could spend at least RMB7bn in server procurement in the coming 5 years. We are less positive in SenseTime AIDC commercialization given 1) severe competition with existing cloud service provider that also supply GPU-based computing power for AI and 2) applications that require such a large amount of computing power is limited.

On 30 Jan 2022, SenseTime announced that a subsidiary of the company has entered into an agreement to purchase a property at RMB3,328mn from a state-owned enterprise established by the Xuhui District of Shanghai. The property will be used as office for SenseTime. Before filling up all the space, part of that could be rented out to generate rental income.

Figure 11: Investments announced by SenseTime since 2022

| Announcement date | Details | Amount (RMB mn) |
|-------------------|-----------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| 24-Jan-22 | Commencement of Shanghai Lingang AIDC | RMB1.6bn (construction cost) + RMB7bn (server procurement to be spent in the coming 5 years) |
| 30-Jan-22 | Purchase of property 4/F-26/F, West Tower, Shanghai West Bund International AI Tower (上海西岸国际人工智能中心) | RMB3,328mn |

Source: Company data, CMBIS

Hikvision 4Q21 preview

Figure 12: Earnings revision

| RMB mn | 2021E | | | 2022E | | | 2023E | | |
|----------------|--------|--------|--------|--------|--------|--------|---------|---------|--------|
| | New | Old | %Diff | New | Old | %Diff | New | Old | %Diff |
| Sales | 80,796 | 80,796 | - | 94,686 | 94,686 | - | 108,649 | 108,649 | 0% |
| Gross profit | 37,354 | 37,354 | - | 43,861 | 43,861 | - | 50,844 | 50,844 | - |
| OP Profit | 17,185 | 16,833 | 2% | 20,693 | 20,491 | 1% | 24,705 | 24,361 | 1% |
| PBT | 19,219 | 18,867 | 2% | 22,791 | 22,560 | 1% | 26,854 | 26,354 | 2% |
| Net profit | 16,768 | 16,454 | 2% | 19,977 | 19,775 | 1% | 23,268 | 22,833 | 2% |
| EPS | 1.80 | 1.76 | 2% | 2.14 | 2.12 | 1% | 2.49 | 2.45 | 2% |
| Margins | | | | | | | | | |
| GM | 46.2% | 46.2% | 0 bps | 46.3% | 46.3% | 0 bps | 46.8% | 46.8% | 0 bps |
| OPM | 21.3% | 20.8% | 44 bps | 21.9% | 21.6% | 21 bps | 22.7% | 22.4% | 32 bps |
| PBT margin | 23.8% | 23.4% | 44 bps | 24.1% | 23.8% | 24 bps | 24.7% | 24.3% | 46 bps |
| Net margin | 20.8% | 20.4% | 39 bps | 21.1% | 20.9% | 21 bps | 21.4% | 21.0% | 40 bps |

Source: Company data, CMBIS, Bloomberg

Figure 13: Hikvision CMBI estimates vs. consensus

| RMB mn | FY4Q21 | | | 2021 | | | 2022 | | |
|----------------|--------|--------|---------|--------|--------|----------|--------|--------|----------|
| | CMBI | Street | Diff | CMBI | Street | Diff | CMBI | Street | Diff |
| Sales | 25,166 | 24,873 | 1% | 80,796 | 79,703 | 1% | 94,686 | 95,050 | -0% |
| Gross profit | 11,579 | 11,124 | 4% | 37,354 | 36,712 | 2% | 43,861 | 43,830 | 0% |
| OP Profit | 5,892 | 5,724 | 3% | 17,185 | 18,440 | -7% | 20,693 | 22,384 | -8% |
| PBT | 6,506 | 6,182 | 5% | 19,219 | 19,197 | 0% | 22,791 | 23,163 | -2% |
| Net profit | 5,802 | 5,519 | 5% | 16,768 | 16,885 | -1% | 19,977 | 20,550 | -3% |
| EPS | 0.62 | 0.60 | 3% | 1.80 | 1.81 | -1% | 2.14 | 2.19 | -2% |
| Margins | | | | | | | | | |
| GM | 46.0% | 44.7% | 129 bps | 46.2% | 46.1% | 17 bps | 46.3% | 46.1% | 21 bps |
| OPM | 23.4% | 23.0% | 40 bps | 21.3% | 23.1% | -187 bps | 21.9% | 23.5% | -169 bps |
| PBT margin | 25.9% | 24.9% | 100 bps | 23.8% | 24.1% | -30 bps | 24.1% | 24.4% | -30 bps |
| Net margin | 23.1% | 22.2% | 87 bps | 20.8% | 21.2% | -43 bps | 21.1% | 21.6% | -52 bps |

Source: Company data, CMBIS, Bloomberg

Figure 14: Hikvision quarterly operating model

| RMB mn | 4Q20 | 1Q21 | 2Q21 | 3Q21 | 4Q21E | 1Q22E | 2Q22E | 3Q22E |
|---------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| Revenues | 21,482 | 13,988 | 19,914 | 21,727 | 25,166 | 16,064 | 23,429 | 25,757 |
| Gross Profit | 9,495 | 6,549 | 9,148 | 10,078 | 11,579 | 7,625 | 11,153 | 11,726 |
| Operating profit | 5,126 | 2,569 | 3,899 | 4,826 | 5,892 | 2,968 | 4,682 | 5,826 |
| Net profit (loss) | 4,947 | 2,169 | 4,312 | 4,484 | 5,802 | 2,845 | 4,601 | 5,631 |
| EPS (RMB) | 0.53 | 0.23 | 0.46 | 0.48 | 0.62 | 0.30 | 0.49 | 0.60 |
| Margins | | | | | | | | |
| Gross margin | 44.2% | 46.8% | 45.9% | 46.4% | 46.0% | 47.5% | 47.6% | 45.5% |
| Operating margin | 23.9% | 18.4% | 19.6% | 22.2% | 23.4% | 18.5% | 20.0% | 22.6% |
| Net margin | 23.0% | 15.5% | 21.7% | 20.6% | 23.1% | 17.7% | 19.6% | 21.9% |
| Growth (QoQ) | | | | | | | | |
| Revenues | 21% | -35% | 42% | 9% | 16% | -36% | 46% | 10% |
| Gross Profit | 19% | -31% | 40% | 10% | 15% | -34% | 46% | 5% |
| Operating profit | 32% | -50% | 52% | 24% | 22% | -50% | 58% | 24% |
| Net profit (loss) | 30% | -56% | 99% | 4% | 29% | -51% | 62% | 22% |
| Growth (YoY) | | | | | | | | |
| Revenues | 21% | 48% | 34% | 22% | 17% | 15% | 18% | 19% |
| Gross Profit | 18% | 47% | 20% | 26% | 22% | 16% | 22% | 16% |
| Operating profit | 41% | 74% | 26% | 24% | 15% | 16% | 20% | 21% |
| Net profit (loss) | 13% | 45% | 38% | 18% | 17% | 31% | 7% | 26% |

Source: Company data, CMBIS

Dahua 4Q21 preview

Figure 15: Earnings revision

| RMB mn | 2021E | | | 2022E | | | 2023E | | |
|----------------|--------|--------|---------|--------|--------|---------|--------|--------|---------|
| | New | Old | %Diff | New | Old | %Diff | New | Old | %Diff |
| Sales | 33,294 | 32,508 | 2% | 37,728 | 36,804 | 3% | 43,632 | 42,525 | 3% |
| Gross profit | 13,281 | 13,216 | 0% | 15,344 | 15,253 | 1% | 17,935 | 17,814 | 1% |
| OP Profit | 3,688 | 3,759 | -2% | 4,336 | 4,487 | -3% | 5,307 | 5,446 | -3% |
| PBT | 3,898 | 3,931 | -1% | 4,676 | 4,845 | -3% | 5,666 | 5,826 | -3% |
| Net profit | 3,741 | 3,689 | 1% | 4,171 | 4,293 | -3% | 5,074 | 5,173 | -2% |
| EPS | 1.25 | 1.23 | 1% | 1.39 | 1.43 | -3% | 1.69 | 1.73 | -2% |
| Margins | | | | | | | | | |
| GM | 39.9% | 40.7% | -76 bps | 40.7% | 41.4% | -77 bps | 41.1% | 41.9% | -78 bps |
| OPM | 11.1% | 11.6% | -49 bps | 11.5% | 12.2% | -70 bps | 12.2% | 12.8% | -64 bps |
| PBT margin | 11.7% | 12.1% | -38 bps | 12.4% | 13.2% | -77 bps | 13.0% | 13.7% | -71 bps |
| Net margin | 11.2% | 11.3% | -11 bps | 11.1% | 11.7% | -61 bps | 11.6% | 12.2% | -54 bps |

Source: Company data, CMBIS, Bloomberg

Figure 16: Dahua CMBI estimates vs. consensus

| RMB mn | FY4Q21 | | | 2021 | | | 2022 | | |
|----------------|--------|--------|----------|--------|--------|----------|--------|--------|----------|
| | CMBI | Street | Diff | CMBI | Street | Diff | CMBI | Street | Diff |
| Sales | 11,809 | 14,157 | -17% | 33,294 | 32,369 | 3% | 37,728 | 38,153 | -1% |
| Gross profit | 4,564 | 5,901 | -23% | 13,281 | 13,468 | -1% | 15,344 | 15,989 | -4% |
| OP Profit | 1,445 | 1,933 | -25% | 3,688 | 4,274 | -14% | 4,336 | 5,365 | -19% |
| PBT | 1,499 | 1,968 | -24% | 3,898 | 4,349 | -10% | 4,676 | 5,498 | -15% |
| Net profit | 1,342 | 1,387 | -3% | 3,741 | 4,105 | -9% | 4,171 | 5,046 | -17% |
| EPS | 0.4 | 0.4 | 5% | 1.2 | 1.4 | -11% | 1.4 | 1.7 | -19% |
| Margins | | | | | | | | | |
| GM | 38.7% | 41.7% | -303 bps | 39.9% | 41.6% | -172 bps | 40.7% | 41.9% | -124 bps |
| OPM | 12.2% | 13.7% | -141 bps | 11.1% | 13.2% | -213 bps | 11.5% | 14.1% | -257 bps |
| PBT margin | 12.7% | 13.9% | -120 bps | 11.7% | 13.4% | -173 bps | 12.4% | 14.4% | -202 bps |
| Net margin | 11.4% | 9.8% | 157 bps | 11.2% | 12.7% | -145 bps | 11.1% | 13.2% | -217 bps |

Source: Company data, CMBIS, Bloomberg

Figure 17: Dahua quarterly operating model

| RMB mn | 4Q20 | 1Q21 | 2Q21 | 3Q21 | 4Q21E | 1Q22E | 2Q21E | 3Q22E |
|---------------------|--------|-------|-------|-------|--------|-------|-------|-------|
| Revenues | 10,300 | 5,114 | 8,391 | 7,980 | 11,809 | 5,659 | 9,432 | 8,677 |
| Gross Profit | 4,028 | 2,092 | 3,502 | 3,123 | 4,564 | 2,361 | 4,016 | 3,463 |
| Operating profit | 1,342 | 370 | 1,266 | 607 | 1,445 | 350 | 1,367 | 640 |
| Net profit (loss) | 1,078 | 348 | 1,296 | 756 | 1,342 | 454 | 1,248 | 674 |
| EPS (RMB) | 0.12 | 0.43 | 0.25 | 0.45 | 0.15 | 0.42 | 0.23 | 0.60 |
| Margins | | | | | | | | |
| Gross margin | 39.1% | 40.9% | 41.7% | 39.1% | 38.7% | 41.7% | 42.6% | 39.9% |
| Operating margin | 13.0% | 7.2% | 15.1% | 7.6% | 12.2% | 6.2% | 14.5% | 7.4% |
| Net margin | 10.5% | 6.8% | 15.4% | 9.5% | 11.4% | 8.0% | 13.2% | 7.8% |
| Growth (QoQ) | | | | | | | | |
| Revenues | 63% | -50% | 64% | -5% | 48% | -52% | 67% | -8% |
| Gross Profit | 59% | -48% | 67% | -11% | 46% | -48% | 70% | -14% |
| Operating profit | 160% | -72% | 242% | -52% | 138% | -76% | 291% | -53% |
| Net profit (loss) | -26% | -68% | 273% | -42% | 78% | -66% | 175% | -46% |
| Growth (YoY) | | | | | | | | |
| Revenues | 6% | 46% | 32% | 26% | 15% | 11% | 12% | 9% |
| Gross Profit | 0% | 21% | 16% | 23% | 13% | 13% | 15% | 11% |
| Operating profit | -15% | 109% | 23% | 18% | 8% | -5% | 8% | 6% |
| Net profit (loss) | -18% | 10% | 24% | -48% | 25% | 31% | -4% | -11% |

Source: Company data, CMBIS, Bloomberg

Valuation

Hikvision (002145 CH, BUY, Trim TP RMB76.25 → RMB62.06)

Maintain BUY with new target price of RMB62.06 (prior RMB76.25), on lowered 29x (prior 36x) FY22 P/E, 1-SD above its three-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 and robotics businesses on STAR board. We believe the spin-off could provide new financing channel to support IoT/ AI R&D.

Dahua (002236 CH, HOLD, Trim TP RMB24.37 → RMB20.89)

Maintain HOLD with new target price of RMB20.89 (prior RMB24.37), based on lowered 15x (prior 17x) FY22 P/E, in-line with its three-year mean. 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.

SenseTime (20 HK, BUY, TP HK\$8.08)

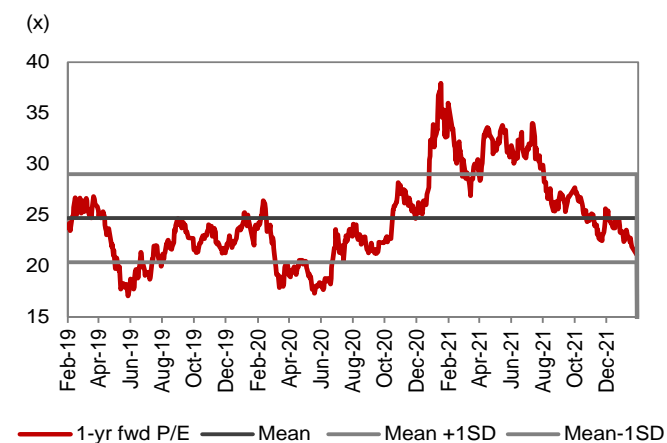
Maintain BUY with unchanged target price of HK\$8.08, based on 34x FY22 EV/sales. Our target multiple is derived from 20% premium to Cambricon. We think Cambricon, leading AI chip design company in China, is the closest comparable to SenseTime as both companies are national champions in an emerging industry. Our premium multiple also takes into account the business scale, scarcity in number of listed AI companies and free float.

Figure 18: Peers' valuation

| Company | Ticker | Rating | Mkt Cap (US\$ mn) | Price (LC) | TP (LC) | P/E FY22E | EV/sales FY22E | ROE FY21E | ROE FY22E | Sales CAGR FY20-23E | EPS CAGR FY20-23E | |
|-----------------|-----------|--------|-------------------|------------|---------|---------------|----------------|-------------|--------------|---------------------|-------------------|------------|
| Hikvision | 002415 CH | BUY | 68,394 | 46.60 | 62.06 | 21.3 | 4.4 | 28.6 | 29.1 | 20% | 22% | |
| Dahua | 002236 CH | HOLD | 9,189 | 19.51 | 20.89 | 11.4 | 1.6 | 17.1 | 16.2 | 18% | 9% | |
| SenseTime | 20 HK | BUY | 29,151 | 6.78 | 8.08 | N/A | 33.2 | N/A | N/A | 37% | N/A | |
| Cambricon Tech | 688256 CH | NR | 4,977 | 79.10 | N/A | N/A | 28.0 | N/A | N/A | 32% | N/A | |
| China Transinfo | 002373 CH | NR | 3,523 | 14.17 | N/A | 16.8 | 1.5 | 8.2 | 9.7 | 16% | 16% | |
| iFlytek | 002230 CH | NR | 17,024 | 46.55 | N/A | 44.3 | 4.7 | 12.2 | 14.4 | 33% | 35% | |
| | | | | | | Mean | 23.4 | 12.2 | -20.3 | 7.6 | 26% | 18% |
| | | | | | | Median | 25.1 | 19.0 | 4.6 | 10.2 | 12.1 | 26% |

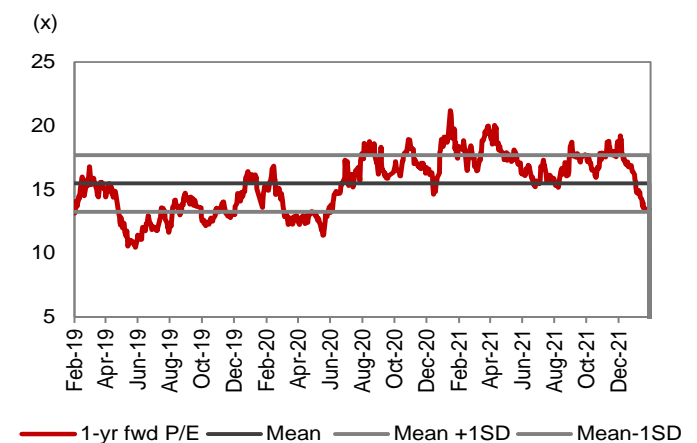
Source: Bloomberg, CMBIS estimates

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) | FY19A | FY20A | FY21E | FY22E | FY23E | YE 31 Dec (RMB mn) | FY19A | FY20A | FY21E | FY22E | FY23E |
| Revenue | 57,658 | 63,503 | 80,796 | 94,686 | 108,649 | Net profit | 12,415 | 13,386 | 16,768 | 19,977 | 23,268 |
| Cost of sales | (31,140) | (33,958) | (43,441) | (50,825) | (57,805) | Depreciation/amortization | 699 | 845 | 1,134 | 1,327 | 1,472 |
| Gross profit | 26,518 | 29,546 | 37,354 | 43,861 | 50,844 | Change in working capital | (7,153) | 597 | (12,917) | (44) | 9,799 |
| Selling exp | (7,257) | (7,378) | (8,974) | (10,285) | (11,456) | Others | 1,807 | 1,260 | 1,363 | 648 | 900 |
| Admin exp | (1,822) | (1,790) | (2,060) | (2,436) | (2,784) | Net cash from operating | 7,768 | 16,088 | 6,348 | 21,909 | 35,439 |
| R&D exp | (5,484) | (6,379) | (8,529) | (9,788) | (11,122) | Capex | (1,927) | (2,004) | (2,724) | (2,361) | (2,519) |
| Other operating exp. | (417) | (416) | (605) | (658) | (777) | Other | 4 | (551) | (177) | 0 | 0 |
| Operating profit | 11,538 | 13,583 | 17,185 | 20,693 | 24,705 | Net cash from investing | (1,923) | (2,555) | (2,900) | (2,361) | (2,519) |
| Finance costs | 640 | (396) | 225 | 285 | 426 | Net borrowings | 187 | 2,049 | 850 | 341 | (2,384) |
| Other non-oper exp. | 1,578 | 2,086 | 1,809 | 1,812 | 1,723 | Dividend paid | (5,609) | (6,542) | (7,475) | (9,363) | (11,156) |
| Pre-tax profit | 13,755 | 15,273 | 19,219 | 22,791 | 26,854 | Other | (14) | (189) | (325) | (648) | (900) |
| Income tax expense | (1,290) | (1,595) | (1,834) | (2,165) | (2,685) | Net cash from financing | (5,436) | (4,681) | (6,950) | (9,670) | (14,440) |
| Minority interests | (51) | (293) | (617) | (648) | (900) | Net change in cash | 408 | 8,852 | (3,503) | 9,877 | 18,480 |
| Net profit to S/H | 12,415 | 13,386 | 16,768 | 19,977 | 23,268 | Cash at beginning of the year | 26,552 | 27,072 | 35,460 | 31,861 | 41,738 |
| | | | | | | Exchange difference | 111 | (464) | (96) | 0 | 0 |
| | | | | | | Cash at the end of the year | 27,072 | 35,460 | 31,861 | 41,738 | 60,218 |
| | | | | | | | | | | | |
| Balance sheet | | | | | | Key ratios | | | | | |
| YE 31 Dec (RMB mn) | FY19A | FY20A | FY21E | FY22E | FY23E | YE 31 Dec | FY19A | FY20A | FY21E | FY22E | FY23E |
| Current assets | 64,026 | 74,763 | 80,959 | 98,965 | 124,525 | Revenue mix | | | | | |
| Cash & equivalents | 27,072 | 35,460 | 31,861 | 41,738 | 60,218 | Core camera solution | 90% | 88% | 82% | 78% | 77% |
| Account receivables | 23,146 | 24,098 | 32,544 | 36,717 | 41,225 | Construction | 2% | 3% | 2% | 2% | 2% |
| Inventory | 11,268 | 11,478 | 12,411 | 15,820 | 17,491 | Smart home business | 4% | 5% | 5% | 6% | 7% |
| Other current assets | 2,540 | 3,727 | 4,144 | 4,689 | 5,591 | Robotics | 1% | 2% | 3% | 5% | 5% |
| | | | | | | Other innovative business | 2% | 3% | 7% | 9% | 10% |
| Non-current assets | 11,332 | 13,939 | 16,356 | 17,390 | 18,437 | Growth (%) | | | | | |
| PPE | 6,423 | 7,301 | 8,783 | 9,817 | 10,864 | Revenue | 16% | 10% | 27% | 17% | 15% |
| Intangible assets | 1,407 | 1,634 | 1,697 | 1,697 | 1,697 | Operating profit | 13% | 18% | 27% | 20% | 19% |
| Other non-current assets | 3,502 | 5,003 | 5,876 | 5,876 | 5,876 | EPS | 8% | 8% | 25% | 19% | 16% |
| Total assets | | | | | | Margin (%) | | | | | |
| Current liabilities | 23,521 | 31,225 | 28,910 | 37,220 | 52,237 | Gross margin | 46.0% | 46.5% | 46.2% | 46.3% | 46.8% |
| ST borrowings | 2,726 | 7,507 | 8,298 | 8,524 | 6,661 | Operating margin | 20.0% | 21.4% | 21.3% | 21.9% | 22.7% |
| Account payables | 13,940 | 14,631 | 9,678 | 16,293 | 31,122 | Net profit margin | 21.5% | 21.1% | 20.8% | 21.1% | 21.4% |
| Accrued expense | 5,941 | 6,173 | 8,274 | 8,583 | 9,636 | | | | | | |
| Other current liabilities | 914 | 2,914 | 2,660 | 3,820 | 4,817 | Balance sheet ratio | | | | | |
| | | | | | | Current ratio (x) | 2.72 | 2.39 | 2.80 | 2.66 | 2.38 |
| Non-current liabilities | 6,364 | 2,997 | 3,557 | 3,672 | 3,151 | Receivable turnover days | 137 | 136 | 128 | 133 | 131 |
| LT borrowings | 4,604 | 1,961 | 2,314 | 2,430 | 1,908 | Inventory turnover days | 54 | 65 | 54 | 54 | 56 |
| Other non-current liabilities | 1,760 | 1,036 | 1,243 | 1,243 | 1,243 | Payable turnover days | 163 | 157 | 81 | 117 | 105 |
| Total liabilities | 29,885 | 34,222 | 32,467 | 40,892 | 55,388 | Net debt to equity | | net cash | net cash | net cash | net cash |
| Share capital | 9,345 | 9,343 | 9,336 | 9,336 | 9,336 | Profitability (%) | | | | | |
| Capital surplus | 4,127 | 5,179 | 5,337 | 5,337 | 5,337 | ROE | 30.1% | 27.1% | 28.6% | 29.1% | 29.1% |
| Retained earnings | 33,634 | 40,479 | 49,789 | 60,403 | 72,515 | ROIC | 45.1% | 42.7% | 41.8% | 41.3% | 53.5% |
| Other reserves | (2,202) | (1,207) | (1,128) | (1,128) | (1,128) | Per share data (RMB) | | | | | |
| Minority interest | 569 | 685 | 1,515 | 1,515 | 1,515 | EPS (RMB) | 1.33 | 1.43 | 1.80 | 2.14 | 2.49 |
| Total equity | 44,904 | 53,794 | 63,333 | 73,947 | 86,059 | DPS (RMB) | 0.60 | 0.70 | 0.80 | 1.00 | 1.19 |
| Total liab. and equity | 74,789 | 88,016 | 95,800 | 114,839 | 141,447 | BVPS (RMB) | 4.81 | 5.76 | 6.78 | 7.92 | 9.22 |

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 | 33,294 | 37,728 | 43,632 |
| Cost of sales | (15,396) | (15,164) | (20,013) | (22,384) | (25,697) |
| Gross profit | 10,753 | 11,302 | 13,281 | 15,344 | 17,935 |
| Selling exp | (3,953) | (4,291) | (5,033) | (5,686) | (6,441) |
| Admin exp | (741) | (785) | (872) | (1,009) | (1,154) |
| R&D exp | (2,794) | (2,998) | (3,460) | (4,091) | (4,779) |
| Other operating exp. | (183) | (162) | (229) | (222) | (254) |
| Operating profit | 3,083 | 3,066 | 3,688 | 4,336 | 5,307 |
| Finance costs | 33 | 58 | (92) | 32 | 47 |
| Other non-oper exp. | 383 | 1,125 | 302 | 307 | 312 |
| Pre-tax profit | 3,499 | 4,249 | 3,898 | 4,676 | 5,666 |
| Income tax expense | (338) | (314) | (137) | (468) | (567) |
| Minority interests | 27 | (32) | (19) | (38) | (26) |
| Net profit to S/H | 3,188 | 3,903 | 3,741 | 4,171 | 5,074 |

Cash flow summary

| YE 31 Dec (RMB mn) | FY19 | FY20 | FY21E | FY22E | FY23E |
|------------------------------------|----------------|--------------|----------------|--------------|--------------|
| Net profit | 3,188 | 3,903 | 3,741 | 4,171 | 5,074 |
| Depreciation/amortization | 297 | 331 | 363 | 363 | 363 |
| Change in working capital | (28) | (186) | (6,848) | (3,386) | (962) |
| Others | (1,857) | 354 | 556 | 38 | 26 |
| Net cash from operating | 1,601 | 4,402 | (2,187) | 1,185 | 4,501 |
| Capex | (531) | (642) | (876) | (566) | (654) |
| Other | (309) | 452 | (582) | 0 | 0 |
| Net cash from investing | (840) | (190) | (1,458) | (566) | (654) |
| Net borrowings | (1,462) | 715 | 1,848 | 223 | 328 |
| Dividend paid | (300) | (399) | (803) | (770) | (858) |
| Other | (120) | 53 | (23) | (38) | (26) |
| Net cash from financing | (1,882) | 369 | 1,023 | (584) | (556) |
| Net change in cash | (1,121) | 4,580 | (2,623) | 35 | 3,291 |
| Cash at beginning of the year | 4,160 | 3,084 | 7,472 | 4,805 | 4,840 |
| Exchange difference | 45 | (193) | (44) | 0 | 0 |
| Cash at the end of the year | 3,084 | 7,472 | 4,805 | 4,840 | 8,130 |

Balance sheet

| YE 31 Dec (RMB mn) | FY19 | FY20 | FY21E | FY22E | FY23E |
|--------------------------------|---------------|---------------|---------------|---------------|---------------|
| Current assets | 22,975 | 29,112 | 33,052 | 39,071 | 44,674 |
| Cash & equivalents | 3,084 | 7,472 | 4,805 | 4,840 | 8,130 |
| Account receivables | 13,241 | 13,090 | 19,412 | 23,253 | 25,119 |
| Inventory | 3,840 | 4,928 | 5,626 | 7,649 | 8,013 |
| Other current assets | 2,810 | 3,622 | 3,208 | 3,329 | 3,411 |
| Non-current assets | 6,589 | 7,483 | 10,024 | 10,227 | 10,518 |
| PPE | 1,958 | 2,680 | 3,641 | 3,915 | 4,276 |
| Intangible assets | 492 | 482 | 660 | 589 | 519 |
| Other non-current assets | 4,139 | 4,321 | 5,723 | 5,723 | 5,723 |
| Total assets | 29,565 | 36,595 | 43,076 | 49,298 | 55,192 |
| Current liabilities | 12,531 | 14,662 | 16,061 | 18,659 | 20,010 |
| ST borrowings | 427 | 402 | 1,672 | 1,672 | 1,672 |
| Account payables | 8,098 | 9,703 | 9,590 | 11,395 | 12,655 |
| Accrued expense | 3,935 | 3,676 | 3,548 | 4,341 | 4,432 |
| Other current liabilities | 71 | 881 | 1,251 | 1,251 | 1,251 |
| Non-current liabilities | 1,057 | 1,729 | 2,491 | 2,714 | 3,042 |
| LT borrowings | 154 | 878 | 1,553 | 1,776 | 2,104 |
| Other non-current liabilities | 904 | 851 | 938 | 938 | 938 |
| Total liabilities | 13,588 | 16,391 | 18,552 | 21,373 | 23,051 |
| Share capital | 3,004 | 2,996 | 2,995 | 2,995 | 2,995 |
| Capital surplus | 1,883 | 1,990 | 2,948 | 2,948 | 2,948 |
| Retained earnings | 11,802 | 15,309 | 18,247 | 21,648 | 25,864 |
| Other reserve | (1,045) | (521) | (188) | (188) | (188) |
| Minority interest | 333 | 431 | 523 | 523 | 523 |
| Total equity | 15,643 | 19,773 | 24,001 | 27,402 | 31,618 |
| Total liab. and equity | 29,231 | 36,164 | 42,553 | 48,775 | 54,669 |

Key ratios

| YE 31 Dec | FY19 | FY20 | FY21E | FY22E | FY23E |
|------------------------------------|----------|----------|----------|----------|----------|
| Revenue mix | | | | | |
| Domestic | 63% | 60% | 59% | 60% | 60% |
| Overseas | 37% | 40% | 41% | 40% | 40% |
| Growth (%) | | | | | |
| Domestic | 9% | -3% | 23% | 16% | 16% |
| Overseas | 13% | 8% | 30% | 10% | 15% |
| Revenue | 10% | 1% | 26% | 13% | 16% |
| Gross profit | 22% | 5% | 18% | 16% | 17% |
| Operating profit | 33% | -1% | 20% | 18% | 22% |
| EPS | 26% | 23% | -4% | 11% | 22% |
| Profit & loss ratio (%) | | | | | |
| Gross margin | 41% | 43% | 40% | 41% | 41% |
| Operating margin | 11.8% | 11.6% | 11.1% | 11.5% | 12.2% |
| Net profit margin | 12.2% | 14.7% | 11.2% | 11.1% | 11.6% |
| Balance sheet ratio | | | | | |
| Current ratio (x) | 1.83 | 1.99 | 2.06 | 2.09 | 2.23 |
| Receivable turnover days | 180 | 182 | 178 | 206 | 202 |
| Inventory turnover days | 48 | 60 | 58 | 64 | 66 |
| Payable turnover days | 109 | 123 | 106 | 102 | 101 |
| Net debt to equity | net cash | net cash | net cash | net cash | net cash |
| Profitability (%) | | | | | |
| ROE | 22.6% | 22.0% | 17.1% | 16.2% | 17.2% |
| ROIC | 26.3% | 24.0% | 20.9% | 16.6% | 18.4% |
| Per share data (RMB) | | | | | |
| EPS (RMB) | 1.06 | 1.30 | 1.25 | 1.39 | 1.69 |
| DPS (RMB) | 0.10 | 0.13 | 0.27 | 0.26 | 0.29 |
| BVPS (RMB) | 5.21 | 6.60 | 8.01 | 9.15 | 10.56 |

Source: Company data, CMBIS estimates

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