

Willsemi (603501 CH)

In-line FY21 results: Solid non-mobile CIS growth overshadowed by weak smartphone

Willsemi announced FY21 results. FY21 revenue/NP grew 21.6%/65.4% YoY to RMB24.1bn/RMB4.5bn (lower end of preliminary est.). CIS revenue grew 10.7% YoY, largely led by strong growth in non-mobile CIS (auto: 85% YoY and security: 70% YoY), partially offset by the weakness in smartphone CIS. TDDI sales grew 163.9% YoY due to strong demand and tight supply. GPM increased to 34.5% thanks to favorable product mix and better-than-expected margin improvement in mobile CIS. **Maintain BUY with new TP of RMB270.0.**

- Non-mobile CIS underpins long-term growth.** In 2021, Auto CIS grew 80%+ YoY to US\$361mn and security CIS grew 60%+ to US\$481mn. The two segments accounted for 41% of total CIS revenue in 2021. We expect non-mobile CIS revenue will gradually surpass mobile CIS revenue, driven by strong demand. Given longer product cycle and high verification barriers, Willsemi's auto CIS's pipeline should be able to support solid revenue growth in the upcoming years.
- Despite recent weakness in smartphone market, Willsemi's mobile CIS business still has room to grow.** We think Android OEMs will continue upgrading their CIS to compete with Apple in the premium smartphone market and try to gain shares where Huawei left. Meanwhile, the Company has announced new products, which are well received by OEMs. With its mobile CIS products upgrade into higher resolutions and better performance, the Company expects its mobile CIS's ASP and GPM to increase as well.
- DDIC business will be another driver.** TDDI revenue grew by 160%+ and reached US\$304mn in 2021. We believe this business could be another driver as the Company is working closely with clients in R&D and is expected to have good import substitute opportunity as OLED DDIC market is currently dominated by Korean suppliers. In the annual report, Willsemi announced that its OLED DDIC products have passed clients' verification and will be adopted in smartphone solutions in 2022.
- Inventory level to remain at high level in near-term.** Willsemi's inventory grew 66.5% YoY to RMB8.8bn in 2021, 4% higher than 2020 in terms of % over total asset. Although the Company has attributed it to supply chain uncertainty and logistic disruptions, it is difficult to identify materials overbooking and shrinking consumer demand under current circumstance. Looking forward, we expect the inventory level to remain high in near-term as a result of COVID resurgence. Policies have been announced to help resume productions and logistics. However, if lockdown measures are prolonged, it may erode consumer demand in the following quarters.
- Maintain BUY with TP of RMB270.0 based on lower 42x FY22E P/E.** We think weak mobile market has been largely priced in. We slightly adjusted our TP to RMB270 based on lower FY22E P/E multiple, considering market concerns over production disruption and possible deterioration in consumer demand. Currently, Willsemi is trading at 25.5x FY22E P/E, which looks attractive. Potential downside risks include: 1) worse-than-expected global economy that curbs consumer spending and 2) unfilled demand caused by semi shortage.

BUY (Maintain)

| | |
|---------------|-------------|
| Target Price | RMB 270.00 |
| (Previous TP) | RMB 292.00) |
| Up/Downside | +64% |
| Current Price | RMB 164.44 |

China Technology Sector

Lily Yang, Ph.D
 (852) 3916 3716
 lilyyang@cmbi.com.hk

Alex Ng
 (852) 3900 0881
 alexng@cmbi.com.hk

Lana Lin
 (852) 3761 8912
 lanalin@cmbi.com.hk

Stock Data

| | |
|--------------------------|------------|
| Mkt Cap (RMBmn) | 144,119 |
| Avg 3 mths t/o (RMBmn) | 1,601 |
| 52w High/Low (RMB) | 345/164.44 |
| Total Issued Shares (mn) | 876.9 |

Source: Bloomberg

Shareholding Structure

| | |
|-----------------------------|--------|
| Yu Renrong | 30.28% |
| SX Weihao Equity Invest. FD | 9.22% |
| HKSCC | 7.67% |

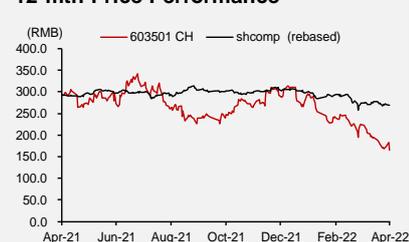
Source: Company data

Share Performance

| | Absolute | Relative |
|-------|----------|----------|
| 1-mth | -18.5% | -17.1% |
| 3-mth | -38.3% | -31.1% |
| 6-mth | -23.7% | -14.8% |

Source: Bloomberg

12-mth Price Performance



Auditor: BDO

Related Reports

- China CIS sector – Can non-mobile CIS strength offset handset weakness? We remain cautiously optimistic ([Link](#))
- FY21 revenue in line; Growth story stays intact – 10 Mar 2022 ([Link](#))
- Solid 4Q; Well poised to embrace 2022. Reiterate BUY – 28 Jan 2022 ([Link](#))

Earnings Summary

| (YE 31 Dec) | FY20A | FY21A | FY22E | FY23E | FY24E |
|-----------------------|--------|--------|----------|----------|----------|
| Revenue (RMB mn) | 19,824 | 24,104 | 30,272 | 36,242 | 41,494 |
| YoY growth (%) | 45.4% | 21.6% | 25.6% | 19.7% | 14.5% |
| Gross profit margin % | 29.9% | 34.5% | 34.7% | 34.9% | 35.1% |
| Net profit (RMB mn) | 2,706 | 4,476 | 5,697 | 7,011 | 8,204 |
| Net profit margin % | 13.7% | 18.6% | 18.8% | 19.3% | 19.8% |
| EPS (RMB) | 3.21 | 5.16 | 6.44 | 7.87 | 9.17 |
| YoY growth (%) | 322.4% | 60.7% | 24.8% | 22.3% | 16.5% |
| Consensus EPS (RMB) | 3.21 | 5.34 | 6.68 | 8.49 | 0.00 |
| P/E (x) | 51.2 | 31.9 | 25.5 | 20.9 | 17.9 |
| ROE (%) | 23.5% | 27.5% | 24.6% | 22.7% | 20.9% |
| Net gearing (%) | 6.7% | 10.9% | net cash | net cash | net cash |

Source: Company data, Bloomberg, CMBIGM estimates

Figure 1: Earnings revision

| US\$ mn | New | | | Old | | | Diff (%) | | |
|------------------|--------|--------|--------|--------|--------|-------|----------|----------|-------|
| | FY22E | FY23E | FY24E | FY22E | FY23E | FY24E | FY22E | FY23E | FY24E |
| Revenue | 30,272 | 36,242 | 41,494 | 29,899 | 35,485 | na | 1% | 2% | na |
| Gross Profit | 10,513 | 12,657 | 14,545 | 10,315 | 12,224 | na | 2% | 4% | na |
| Operating Profit | 6,425 | 7,908 | 9,253 | 6,322 | 7,579 | na | 2% | 4% | na |
| Net profit | 5,697 | 7,011 | 8,204 | 5,781 | 6,915 | na | -1% | 1% | na |
| EPS (US\$ cents) | 6.440 | 7.874 | 9.174 | 6.483 | 7.756 | na | -1% | 2% | na |
| Gross Margin | 34.7% | 34.9% | 35.1% | 34.5% | 34.4% | na | 0.2 ppt | 0.5 ppt | na |
| Operating Margin | 21.2% | 21.8% | 22.3% | 21.1% | 21.4% | na | 0.1 ppt | 0.5 ppt | na |
| Net Margin | 18.8% | 19.3% | 19.8% | 19.3% | 19.5% | na | -0.5 ppt | -0.1 ppt | na |

Source: Company data, CMBIGM estimates

Figure 2: CMBIGM estimates vs consensus

| US\$ mn | CMBIGM | | | Consensus | | | Diff (%) | | |
|------------------|--------|--------|--------|-----------|--------|--------|----------|---------|----------|
| | FY22E | FY23E | FY24E | FY22E | FY23E | FY24E | FY22E | FY23E | FY24E |
| Revenue | 30,272 | 36,242 | 41,494 | 32,193 | 39,602 | 47,724 | -6% | -8% | -13% |
| Gross Profit | 10,513 | 12,657 | 14,545 | 10,888 | 13,476 | 16,947 | -3% | -6% | -14% |
| Operating Profit | 6,425 | 7,908 | 9,253 | 6,547 | 8,284 | 9,009 | -2% | -5% | 3% |
| Net profit | 5,697 | 7,011 | 8,204 | 5,784 | 7,398 | 9,508 | -2% | -5% | -14% |
| EPS (US\$ cents) | 6.440 | 7.874 | 9.174 | 6.682 | 8.493 | 10.787 | -4% | -7% | -15% |
| Gross Margin | 34.7% | 34.9% | 35.1% | 33.8% | 34.0% | 35.5% | 0.9 ppt | 0.9 ppt | -0.5 ppt |
| Operating Margin | 21.2% | 21.8% | 22.3% | 20.3% | 20.9% | 18.9% | 0.9 ppt | 0.9 ppt | 3.4 ppt |
| Net Margin | 18.8% | 19.3% | 19.8% | 18.0% | 18.7% | 19.9% | 0.9 ppt | 0.7 ppt | -0.2 ppt |

Source: Company data, CMBIGM estimates

Figure 3: Peers valuation

| Company | Ticker | Mkt Cap US\$(mn) | Price (LC) | P/E (x) | | P/B (x) | | ROE (%) | |
|----------------------------|-----------|---------------------|---------------|-------------|-------------|------------|------------|-------------|-------------|
| | | | | FY22E | FY23E | FY22E | FY23E | FY22E | FY23E |
| Global CIS peers | | | | | | | | | |
| Willsemi | 603501 CH | 22,621 | 164.44 | 25.5 | 20.9 | 6.3 | 4.8 | 24.6 | 22.7 |
| GalaxyCore | 688728 CH | 8,052 | 20.50 | 28.8 | 23.5 | 6.2 | 4.9 | 21.5 | 20.9 |
| Sony | SONY US | 111,581 | 88.48 | 16.1 | 15.5 | 2.3 | 2.0 | 14.2 | 16.3 |
| Samsung | 005930 KS | 324,453 | 67300.00 | 9.5 | 8.4 | 1.4 | 1.2 | 14.8 | 14.9 |
| STMicroelectronics | STM FP | 33,535 | 34.16 | 11.8 | 11.4 | 2.8 | 2.3 | 27.3 | 21.6 |
| ON Semi | ON US | 23,703 | 54.57 | 13.0 | 12.2 | 4.2 | 3.5 | 33.5 | 27.6 |
| Peers Avg. | | | | 17.5 | 15.3 | 3.9 | 3.1 | 22.7 | 20.7 |
| Peers Median | | | | 14.6 | 13.9 | 3.5 | 2.9 | 23.1 | 21.3 |
| China fabless peers | | | | | | | | | |
| Willsemi | 603501 CH | 22,621 | 164.44 | 25.5 | 20.9 | 6.3 | 4.8 | 24.6 | 22.7 |
| GalaxyCore | 688728 CH | 8,052 | 20.50 | 28.8 | 23.5 | 6.2 | 4.9 | 21.5 | 20.9 |
| Gigadevice | 603986 CH | 14,164 | 135.27 | 31.7 | 25.1 | 5.8 | 4.9 | 19.4 | 20.1 |
| Maxscend | 300782 CH | 10,746 | 205.34 | 27.3 | 20.8 | 10.1 | 7.2 | 37.1 | 34.3 |
| Goodix | 603160 CH | 4,735 | 65.80 | 25.9 | 19.7 | 3.1 | 2.7 | 12.3 | 14.1 |
| SG Micro | 300661 CH | 10,891 | 294.14 | 74.9 | 54.7 | 23.7 | 17.2 | 33.6 | 32.7 |
| Peers Avg. | | | | 35.7 | 27.5 | 9.2 | 7.0 | 24.8 | 24.1 |
| Peers Median | | | | 28.1 | 22.2 | 6.3 | 4.9 | 23.1 | 21.8 |

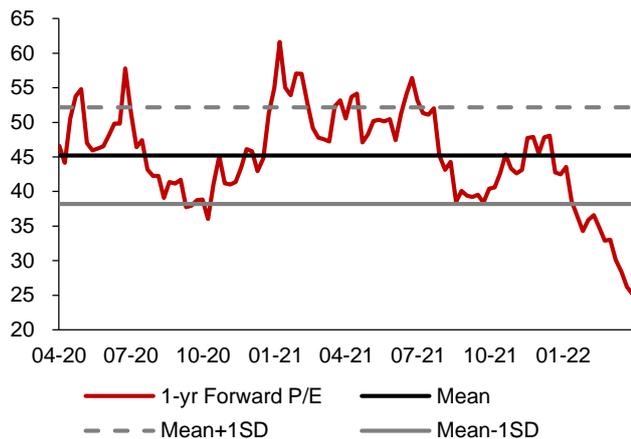
Source: Bloomberg and CMBIGM, as of 19 Apr 2022.

Figure 4: Financials

| (RMBmn) | FY20A | FY21A | FY22E | FY23E | FY24E |
|--------------------------|-----------------|----------------|-----------------|-----------------|-----------------|
| Revenue | | | | | |
| Mobile CIS | 10,287.8 | 9,570.8 | 10,531.8 | 11,349.7 | 12,095.6 |
| ... YoY% | 61.9% | -7.0% | 10.0% | 7.8% | 6.6% |
| Security CIS | 1,763.6 | 3,059.9 | 4,194.2 | 5,129.2 | 5,803.8 |
| ... YoY% | na | 73.5% | 37.1% | 22.3% | 13.2% |
| Auto CIS | 1,243.2 | 2,300.0 | 3,613.6 | 5,250.9 | 6,896.4 |
| ... YoY% | na | 85.0% | 57.1% | 45.3% | 31.3% |
| Other | 1,402.2 | 1,333.0 | 1,733.0 | 2,166.2 | 2,599.4 |
| ... YoY% | na | -4.9% | 30.0% | 25.0% | 20.0% |
| Total CIS | 14,697 | 16,264 | 20,072 | 23,896 | 27,395 |
| ... YoY% | 50% | 11% | 23% | 19% | 15% |
| Display driver | 744 | 1,963 | 2,980 | 3,822 | 4,357 |
| ... YoY% | na | 164% | 52% | 28% | 14% |
| TVS | 503 | 565 | 649 | 714 | 786 |
| ... YoY% | 19% | 12% | 15% | 10% | 10% |
| PMIC | 381 | 461 | 613 | 780 | 963 |
| ... YoY% | 62% | 21% | 33% | 27% | 23% |
| ASIC | 368 | 420 | 524 | 629 | 755 |
| ... YoY% | -14% | 14% | 25% | 20% | 20% |
| CameraCubeChip | 179 | 282 | 381 | 496 | 595 |
| ... YoY% | 7% | 57% | 35% | 30% | 20% |
| Other | 395 | 425 | 632 | 832 | 1,069 |
| ... YoY% | 21% | 8% | 49% | 32% | 29% |
| Total IC design | 17,267 | 20,380 | 25,853 | 31,169 | 35,920 |
| ... YoY% | 52% | 18% | 27% | 21% | 15% |
| Semi distribution | 2,485 | 3,660 | 4,356 | 5,009 | 5,510 |
| ... YoY% | 11% | 47% | 19% | 15% | 10% |
| Other | 71 | 64 | 64 | 64 | 64 |
| ... YoY% | 89% | -10% | 0% | 0% | 0% |
| Total Revenue | 19,824 | 24,104 | 30,272 | 36,242 | 41,494 |
| ... YoY% | 45% | 22% | 26% | 20% | 14% |
| Gross profit | | | | | |
| CIS | 4,610.3 | 5,471.1 | 6,961.2 | 8,465.9 | 9,824.3 |
| ... GPM% | 31.4% | 33.6% | 34.7% | 35.4% | 35.9% |
| Display driver | 178.7 | 1,195.3 | 1,564.5 | 1,815.3 | 1,960.6 |
| ... GPM% | 24.0% | 60.9% | 52.5% | 47.5% | 45.0% |
| Other | 1,140.8 | 1,647.5 | 1,986.9 | 2,376.1 | 2,760.5 |
| Total | 5,929.8 | 8,313.9 | 10,512.5 | 12,657.4 | 14,545.4 |
| ... GPM% | 29.9% | 34.5% | 34.7% | 34.9% | 35.1% |

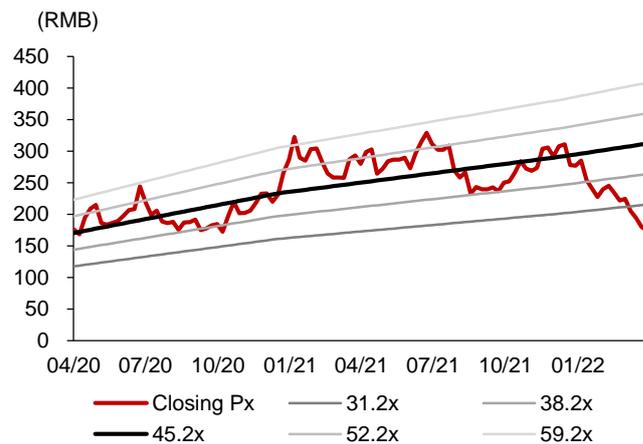
Source: Bloomberg and CMBIGM estimates.

Figure 5: 12M forward P/E chart



Source: Company data, CMBIGM estimates

Figure 6: 12M forward P/E band



Source: Company data, CMBIGM estimates

Financial Summary

Income statement

| YE 31 Dec (RMB mn) | FY20A | FY21A | FY22E | FY23E | FY24E |
|-----------------------------------|---------------|---------------|---------------|---------------|---------------|
| Revenue | 19,824 | 24,104 | 30,272 | 36,242 | 41,494 |
| COGS | -13,894 | -15,790 | -19,759 | -23,584 | -26,949 |
| Gross Profit | 5,930 | 8,314 | 10,513 | 12,657 | 14,545 |
| SG&A | -1,147 | -1,201 | -1,508 | -1,805 | -2,067 |
| R&D exp. | -1,727 | -2,110 | -2,724 | -3,262 | -3,734 |
| Financing exp. | -275 | -356 | -137 | 23 | 191 |
| Other opex | 176 | 352 | 282 | 295 | 318 |
| Operating profit | 2,956 | 5,000 | 6,425 | 7,908 | 9,253 |
| Non-operating income | 44 | 5 | 6 | 8 | 9 |
| Non-operating exp. | -9 | -3 | -3 | -4 | -5 |
| Pre-tax profit | 2,991 | 5,002 | 6,428 | 7,911 | 9,257 |
| Income tax expenses | -308 | -456 | -643 | -791 | -926 |
| Net profit | 2,683 | 4,546 | 5,785 | 7,120 | 8,331 |
| Non-controlling interests | -23 | 70 | 89 | 109 | 128 |
| Net profit to shareholders | 2,706 | 4,476 | 5,697 | 7,011 | 8,204 |

Cash flow summary

| YE 31 Dec (RMB mn) | FY20A | FY21A | FY22E | FY23E | FY24E |
|--------------------------------|---------------|---------------|---------------|---------------|---------------|
| Pretax profit | 2,683 | 4,546 | 5,785 | 7,120 | 8,331 |
| D&A | 765 | 879 | 863 | 1,000 | 1,168 |
| Change in working capital | -221 | -3,328 | -971 | -1,233 | -237 |
| Others | 117 | 96 | 269 | 333 | 391 |
| Net cash from operating | 3,345 | 2,192 | 5,946 | 7,220 | 9,653 |
| Capex | -1,133 | -1,122 | -1,651 | -1,969 | -2,253 |
| Purchase/sale of investments | -373 | -1,969 | -273 | -301 | -333 |
| Purchase/sale of subs | -1,163 | 96 | 51 | 51 | 51 |
| Other | 38 | 96 | 489 | 481 | 559 |
| Net cash from investing | -2,631 | -2,899 | -1,384 | -1,739 | -1,976 |
| Change in shares | 683 | 1,203 | 1,779 | 1,298 | 888 |
| Change in debt | 1,567 | 3,066 | 31 | 325 | 32 |
| Dividend/interests paid | -413 | -569 | -881 | -1,013 | -1,155 |
| Other | -3 | -767 | -184 | 29 | -101 |
| Net cash from financing | 1,835 | 2,932 | 745 | 639 | -336 |
| Net change in cash | 2,548 | 2,226 | 5,307 | 6,120 | 7,341 |
| Cash, beginning | 3,116 | 5,423 | 7,630 | 12,919 | 19,021 |
| Exchange difference | -241 | -18 | -18 | -18 | -18 |
| Cash, end | 5,423 | 7,630 | 12,919 | 19,021 | 26,345 |

Balance sheet

| YE 31 Dec (RMB mn) | FY20A | FY21A | FY22E | FY23E | FY24E |
|-------------------------------------|---------------|---------------|---------------|---------------|---------------|
| Current assets | 13,913 | 20,296 | 27,685 | 36,310 | 44,582 |
| Cash & equivalents | 5,456 | 7,671 | 12,960 | 19,062 | 26,385 |
| Trade & other receivables | 2,583 | 3,029 | 3,894 | 4,848 | 5,427 |
| Inventories | 5,274 | 8,781 | 9,866 | 11,188 | 11,397 |
| Other current assets | 600 | 814 | 966 | 1,213 | 1,373 |
| Non-current assets | 8,735 | 11,784 | 12,887 | 14,038 | 15,336 |
| PPE | 1,871 | 1,863 | 2,120 | 2,470 | 2,901 |
| Intangibles | 1,509 | 1,604 | 1,541 | 1,521 | 1,512 |
| Goodwill | 2,800 | 2,998 | 2,947 | 2,896 | 2,845 |
| Other non-current assets | 2,556 | 5,320 | 6,279 | 7,151 | 8,078 |
| Total assets | 22,648 | 32,080 | 40,572 | 50,348 | 59,918 |
| Current liabilities | 6,845 | 8,700 | 10,078 | 10,917 | 11,260 |
| ST debt & LT debt to mature | 3,041 | 3,745 | 3,976 | 3,523 | 3,112 |
| Trade & other payables | 2,544 | 3,956 | 4,389 | 5,570 | 5,811 |
| Other current liabilities | 1,260 | 999 | 1,713 | 1,824 | 2,337 |
| Non-current liabilities | 4,278 | 7,076 | 7,352 | 8,507 | 9,415 |
| LT debt | 3,182 | 3,448 | 3,498 | 4,276 | 4,719 |
| Bonds payables | 0 | 2,250 | 2,000 | 2,000 | 2,000 |
| Other non-current liabilities | 1,096 | 1,378 | 1,853 | 2,232 | 2,696 |
| Total liabilities | 11,123 | 15,776 | 17,429 | 19,424 | 20,675 |
| Total equity | 11,525 | 16,304 | 23,143 | 30,924 | 39,243 |
| Share capital | 868 | 876 | 885 | 890 | 894 |
| Reserves | 7,248 | 8,434 | 10,204 | 11,497 | 12,381 |
| Treasury stock | -255.4 | -741.7 | -741.7 | -741.7 | -741.7 |
| Retained earnings | 3,895 | 8,049 | 13,228 | 19,583 | 26,984 |
| Other equities | -516.2 | -418.8 | -627.0 | -608.1 | -705.5 |
| Minority interests | 286 | 106 | 195 | 304 | 432 |
| Total liabilities and equity | 22,648 | 32,080 | 40,572 | 50,348 | 59,918 |

Key ratios

| YE 31 Dec (RMB mn) | FY20A | FY21A | FY22E | FY23E | FY24E |
|------------------------------------|---------------|---------------|---------------|---------------|---------------|
| Revenue by segment | | | | | |
| CMOS | 14,697 | 16,264 | 20,072 | 23,896 | 27,395 |
| TDDI | 744 | 1,963 | 2,980 | 3,822 | 4,357 |
| Others | 4,383 | 5,877 | 7,220 | 8,524 | 9,742 |
| Total | 19,824 | 24,104 | 30,272 | 36,242 | 41,494 |
| CMOS % | 74.1% | 67.5% | 66.3% | 65.9% | 66.0% |
| Growth (%) | | | | | |
| Revenue | 45.4% | 21.6% | 25.6% | 19.7% | 14.5% |
| Adj. EBITDA | 173.1% | 58.0% | 24.0% | 22.2% | 10.4% |
| Net profit | 481.2% | 65.4% | 27.3% | 23.1% | 17.0% |
| Profit & loss ratio (%) | | | | | |
| Gross margin | 29.9% | 34.5% | 34.7% | 34.9% | 35.1% |
| EBITDA margin | 18.8% | 24.4% | 24.1% | 24.6% | 23.7% |
| Net profit margin | 13.7% | 18.6% | 18.8% | 19.3% | 19.8% |
| Balance sheet ratio | | | | | |
| Net debt/total equity (%) | 6.7% | 10.9% | net | net | net |
| Debt/EBITDA | 1.7 | 1.6 | 1.3 | 1.1 | 1.0 |
| Interest coverage | 12.5 | 14.3 | 17.1 | 20.5 | 22.3 |
| Cash conversion cycle (days) | 123.1 | 152.5 | 157.5 | 149.5 | 140.5 |
| Profitability (%) | | | | | |
| ROE | 23.5% | 27.5% | 24.6% | 22.7% | 20.9% |
| ROA | 11.9% | 14.0% | 14.0% | 13.9% | 13.7% |
| Per share data (RMB) | | | | | |
| EPS | 3.21 | 5.16 | 6.44 | 7.87 | 9.17 |
| BVPS | 13.33 | 18.67 | 25.94 | 34.39 | 43.40 |

Source: Company data, CMBIGM 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.

CMBIGM Ratings

BUY : Stock with potential return of over 15% over next 12 months
HOLD : Stock with potential return of +15% to -10% over next 12 months
SELL : Stock with potential loss of over 10% over next 12 months
NOT RATED : Stock is not rated by CMBIGM

OUTPERFORM : Industry expected to outperform the relevant broad market benchmark over next 12 months
MARKET-PERFORM : Industry expected to perform in-line with the relevant broad market benchmark over next 12 months
UNDERPERFORM : Industry expected to underperform the relevant broad market benchmark over next 12 months

CMB International Global Markets Limited

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

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

Important Disclosures

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

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

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

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

Additional information on recommended securities is available upon request.

For recipients of this document in the United Kingdom

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

For recipients of this document in the United States

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

For recipients of this document in Singapore

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