

# Xinyi Solar (968 HK)

## Shining 1H20 from PV glass sales

XYs delivered outstanding 1H20 results. Net profit surged 47.6% YoY to HK\$1,406mn mainly on 1) PV glass sales volume growth; 2) costs saving from favorable soda ash and natural gas price; and more importantly 3) thinner PV glass with higher GPM accounted for higher proportion in product mix. We think XYs' stunning performance will continue in 2H20, supported by China and overseas PV installation release, stable costs structure, and continuing improving product mix with increasing bifacial module penetration. **We raised our FY20-22E earnings by 8.9%/3.0%/10.0%. Our DCF valuation rolls over to FY21E with TP lifted 58.5% to HK\$10.0. Maintain BUY.**

- **Stunning 1H20 results.** Revenue grew 15.7% YoY to HK\$4,623mn, led by PV glass sales surge of 19.3% YoY to HK\$3,488mn. Gross profit was up 43.8% to HK\$2,189mn. Major expense remained in well control, as key items such as administrative/finance expense exhibited YoY decline of 5.3%/25.3% respectively. Net profit/EPs was HK\$1,406mn/HK\$17.4 cents, up 47.6%/44.1% YoY. XYs declared interim dividend of HK\$8.5 cents, representing 48.9% dividend payout based on 1H20 earnings.
- **PV glass sales was the key growth driver.** XYs realized outstanding PV glass sales despite the impacts caused by COVID-19. Mgmt. attributed the good results to 1) ~10% costs saving from both soda ash and natural gas costs; 2) higher ASP realized; and 3) product mix shift towards 2.0mm PV glass as bifacial module becomes popular. GPM of the segment expanded 11.6ppt YoY to 38.9%, as a result. We estimate material and energy saving brought around 4.5% costs saving, and product mix change led to majority of remaining margin expansion. We expect XYs to maintain its momentum in 2H20 on the back of thin glass sales mix to increase from ~25% to 35%.
- **Postponing Wuhu capacity to 2021.** In Guangxi Beihai, XYs had 1k tonne melting capacity commenced operation in Jun, and planned to have another to commence in Aug. For Wuhu capacity, the Company postponed releasing new production lines to 2021 due to changing production line design to coop with larger size module, and flood in Anhui also caused construction delay. In 2021-22, XYs plans to add 1k melting tonne in each quarter to accelerate expansion pace to meet surging downstream demand.
- **Raise TP by 58.5%; maintain BUY.** We trim revenue forecast by 10.1% in FY20E but raise earnings estimates due to improving GPM outlook. We lift FY20-22E earnings forecast by 8.9%/3.0%/10.0% to reflect XYs' outstanding PV glass profitability with product mix change. Our DCF TP is raised by 58.5% to HK\$10.00, reflecting FY20/21E 24.2x/17.6x PER. In a sector up cycle with booming demand, we think our valuation is justified. Maintain BUY rating on XYs.

### Earnings Summary

(YE 31 Dec)	FY18A	FY19A	FY20E	FY21E	FY22E
Revenue (HK\$ mn)	7,672	9,096	10,840	13,626	17,891
Net income (HK\$ mn)	1,863	2,416	3,257	4,622	5,924
EPS (HK\$)	0.25	0.30	0.40	0.57	0.72
YoY growth (%)	(24)	22	32	41	28
Consensus EPS (HK\$)	N/A	N/A	0.38	0.50	0.63
P/E (x)	33.7	27.6	20.9	14.8	11.5
P/B (x)	6.1	4.8	4.3	3.7	3.1
Yield (%)	1.5	1.7	2.3	3.2	4.2
ROE (%)	18.3	17.3	20.5	24.7	26.8
Net gearing (%)	76.5	35.9	38.6	26.3	16.0

Source: Company data, Bloomberg, CMBIS estimates

### BUY (Maintain)

Target Price	HK\$10.00
(Previous TP	HK\$6.31)
Up/Downside	+19.5%
Current Price	HK\$8.37

### China Solar Sector

**Robin Xiao**  
 (852) 3900 0849  
 robinxiao@cmbi.com.hk

### Stock Data

Mkt Cap (HK\$ mn)	68,382
Avg 3 mths t/o (HK\$ mn)	183
52w High/Low (HK\$)	8.88/3.72
Total Issued Shares (mn)	8,165
Source: Bloomberg	

### Shareholding Structure

Xinyi Group Glass Co Ltd	24.4%
Yin Yee Lee	32.1%
Free float	43.5%

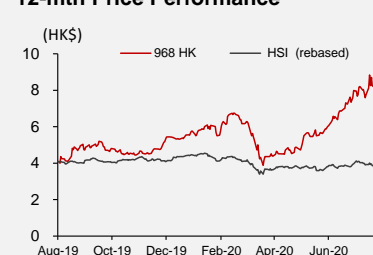
Source: HKEx

### Share Performance

	Absolute	Relative
1-mth	4.9%	8.8%
3-mth	71.5%	72.8%
6-mth	51.4%	63.1%
12-mth	96.9%	116.8%

Source: Bloomberg

### 12-mth Price Performance



Source: Bloomberg

### Auditor: PwC

### Related Reports

1. "China Solar Sector - Supply chain updates: overseas demand visibility is still low" – 19 May 2020
2. "Xinyi Solar (968 HK) - FY19 earnings in line; new capacity delay by 1Q" – 17 Mar 2020

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**Figure 1: 1H20 earnings summary**

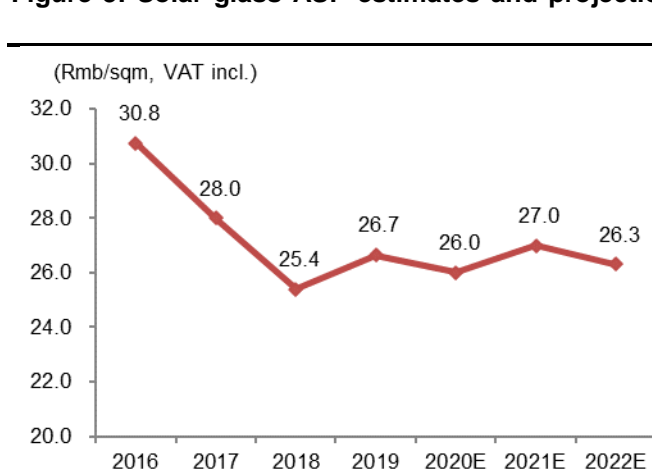
(HK\$ mn)	1H19	FY19A	1H19/ FY19%	1H20A	FY20E	1H20/ FY20E%	1H20 YoY%
<b>Revenue</b>	<b>3,997</b>	<b>9,096</b>	<b>43.9%</b>	<b>4,623</b>	<b>10,840</b>	<b>42.6%</b>	<b>15.7%</b>
Solar glass manufacturing	2,925	6,767	43.2%	3,488	8,589	40.6%	19.3%
Solar power generation	1,025	2,228	46.0%	1,101	2,120	52.0%	7.5%
EPC services	48	101	47.1%	34	131	25.7%	-29.0%
<b>Cost of Sales</b>	<b>(2,425)</b>	<b>(5,185)</b>	<b>46.8%</b>	<b>(2,434)</b>	<b>(5,846)</b>	<b>41.6%</b>	<b>0.4%</b>
Gross profit	1,572	3,912	40.2%	2,189	4,994	43.8%	39.2%
Gross profit margin	39.3%	43.0%	n/a	47.3%	46.1%	n/a	8.0ppt
Other income	64	131	48.8%	71	139	50.9%	11.1%
Other(losses)/gains, net	1	(5)	-25.9%	(1)	(5)	27.8%	-198.9%
Selling and marketing expenses	(126)	(282)	44.7%	(136)	(389)	35.0%	8.3%
Administrative expenses	(220)	(427)	51.5%	(208)	(477)	43.7%	-5.3%
<b>Operating profit</b>	<b>1,291</b>	<b>3,328</b>	<b>38.8%</b>	<b>1,914</b>	<b>4,263</b>	<b>44.9%</b>	<b>48.2%</b>
Finance income	10	49	20.9%	22	15	145.7%	114.0%
Finance costs	(156)	(304)	51.4%	(116)	(223)	52.2%	-25.3%
Share profits	15	33	43.3%	19	33	55.9%	29.1%
<b>Profit before income Tax</b>	<b>1,160</b>	<b>3,108</b>	<b>37.3%</b>	<b>1,838</b>	<b>4,088</b>	<b>45.0%</b>	<b>58.4%</b>
Income tax expense	(92)	(294)	31.1%	(225)	(429)	52.5%	146.1%
Effective tax rate	7.9%	9.5%	n/a	12.3%	10.5%	n/a	4.4ppt
<b>Profit after tax</b>	<b>1,069</b>	<b>2,799</b>	<b>38.2%</b>	<b>1,613</b>	<b>3,658</b>	<b>44.1%</b>	<b>50.9%</b>
Less: Minority interests	116	382	30.3%	206	401	51.4%	77.9%
<b>Net income</b>	<b>953</b>	<b>2,416</b>	<b>39.4%</b>	<b>1,406</b>	<b>3,257</b>	<b>43.2%</b>	<b>47.6%</b>
Net margin	23.8%	26.6%	n/a	30.4%	30.0%	n/a	6.6ppt

Source: Company data, CMBIS estimates

**Figure 2: 1H20 segment GP & GPM**

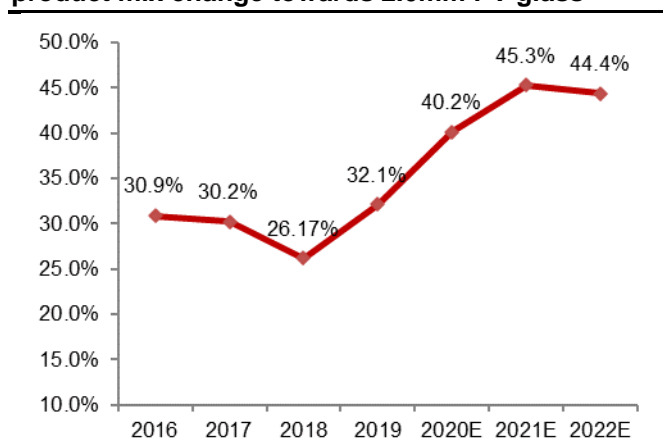
(HK\$ mn)	1H19	1H20A	1H20 YoY%
<b>GP</b>			
PV glass	799	1,356	70%
Solar farm	764	820	7%
EPC	10	13	31%
<b>GPM</b>			
PV glass	27.3%	38.9%	11.6ppt
Solar farm	74.5%	74.5%	0.0ppt
EPC	20.1%	37.0%	16.9ppt

Source: Company data, CMBIS

**Figure 3: Solar glass ASP estimates and projection**

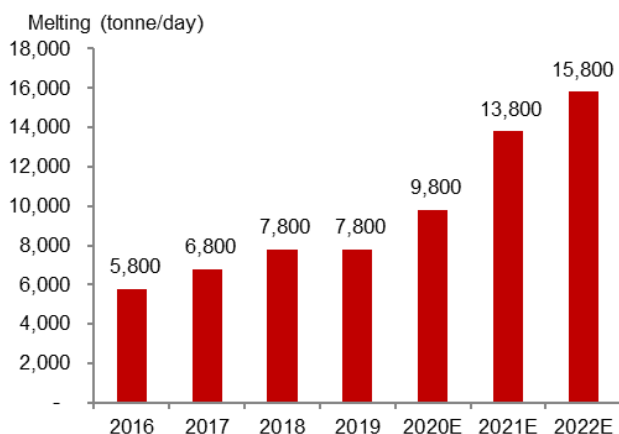
Source: CMBIS estimates

Note: 2016 - 19 ASP is estimated based on sales over shipment projection

**Figure 4: We expect solar glass GPM to surge with product mix change towards 2.0mm PV glass**

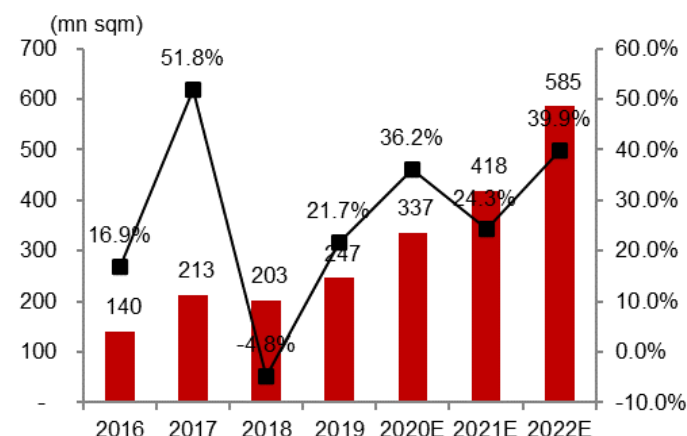
Source: Company data, CMBIS estimates

Figure 5: Solar glass melting capacity



Source: Company data, CMBIS estimates

Figure 6: PV glass sales projection



Source: Company data, CMBIS estimates

Figure 7: Earnings revision

	Old			New			Change%		
	2020	2021	2022	2020	2021	2022	2020	2021	2022
PV processed glass ASP (RMB/sqm)	28.0	27.5	27.0	26.0	27.0	26.3	-7.1%	-1.8%	-2.6%
PV glass sales volume (mn sqm)	343	475	606	337	418	585	-2.0%	-11.9%	-3.5%
Revenue (HK\$, mn)	12,054	16,024	19,994	10,840	13,626	17,891	-10.1%	-15.0%	-10.5%
Net income(HK\$, mn)	2,992	4,487	5,383	3,257	4,622	5,924	8.9%	3.0%	10.0%
EPS(HK\$)	0.37	0.56	0.67	0.40	0.57	0.72	8.9%	3.0%	10.0%
Consensus earnings							Our est. vs. consensus		
Net profit (HK\$, mn)				3,062	4,061	5,170	6.4%	13.8%	14.6%
EPS(HK\$)				0.38	0.50	0.63	5.5%	13.6%	15.2%

Source: CMBIS estimates

**Figure 8: Our DCF valuation**

DCF Valuation	2022	2023	2024	2025	2026	2027	2028	2029	2030
Turnover (HK\$ mn)	17,891	21,105	22,222	23,332	24,438	25,539	26,638	27,737	28,838
Solar glass	15,109	17,870	18,762	19,632	20,480	21,305	22,109	22,892	23,654
Solar Farm	2,560	2,990	3,191	3,405	3,633	3,876	4,136	4,413	4,708
EPC	222	244	269	296	325	358	394	433	476
Turnover growth	31.3%	18.0%	5.3%	5.0%	4.7%	4.5%	4.3%	4.1%	4.0%
EBIT (HK\$ mn)	5,845	7,067	7,451	7,836	8,223	8,613	9,006	9,403	9,805
EBIT margin(%)	32.7%	33.5%	33.5%	33.6%	33.6%	33.7%	33.8%	33.9%	34.0%
Tax rate (%)	15.3%	15.6%	15.8%	15.8%	15.9%	15.9%	15.9%	15.9%	15.9%
Depreciation -HKD mn	1,082	1,210	1,288	1,368	1,451	1,538	1,628	1,722	1,821
Change in working capital	(2,132)	(1,125)	(391)	(222)	(177)	(176)	(176)	(176)	(176)
CAPEX (HKD mn)	(2,088)	(2,188)	(2,296)	(2,446)	(2,611)	(2,792)	(2,991)	(3,210)	(3,451)
<b>Free cash flow</b>	<b>1,811</b>	<b>3,865</b>	<b>4,876</b>	<b>5,295</b>	<b>5,583</b>	<b>5,816</b>	<b>6,036</b>	<b>6,243</b>	<b>6,436</b>
Years	1	2	3	4	5	6	7	8	9
Discount factor	0.92	0.85	0.79	0.73	0.67	0.62	0.57	0.53	0.49
<b>Discount free cash flow</b>	<b>1,673</b>	<b>3,295</b>	<b>3,839</b>	<b>3,849</b>	<b>3,748</b>	<b>3,605</b>	<b>3,455</b>	<b>3,299</b>	<b>3,141</b>
<b>Terminal value</b>	<b>125,109</b>								
<b>Terminal EV/EBITDA</b>	<b>10.76</b>								
<b>Discounted terminal value</b>	<b>61,050</b>								
<b>Terminal perpetual growth</b>	<b>3%</b>								

WACC Calculations	
Cost of debt	4.0%
Tax rate	15.0%
After tax cost of debt	3.4%
Cost of equity	12.3%
Adjusted beta	1.10
Market risk premium	9.6%
Risk free rate	1.8%
% of debt financing	45.0%
WACC	8.3%

Valuations (HK\$ mn)	
<b>Discounted Terminal Value</b>	<b>61,050</b>
Terminal perpetual growth(%)	3.0%
Terminal EV/EBITDA	10.76
Total discount FCF	29,902
Enterprise Value	90,952
Discount FCF(% of total)	32.9%
Terminal value (% of total)	67.1%
Add: Cash & cash equivalent	3,225
Less: Total debt	(8,135)
Non-controlling interest	(5,219)
Equity Value (HKD mn)	80,822
<b>Fair value per share(HK\$)</b>	<b>10.00</b>

Source: CMBIS estimates

## Financial Summary

### Income statement

YE 31 Dec (HK\$ mn)	FY18A	FY19A	FY20E	FY21E	FY22E
<b>Revenue</b>	<b>7,672</b>	<b>9,096</b>	<b>10,840</b>	<b>13,626</b>	<b>17,891</b>
Solar glass sales	5,562	6,767	8,589	11,085	15,109
Solar power generation	1,920	2,228	2,120	2,371	2,560
EPC services	189	101	131	171	222
<b>Cost of sales</b>	<b>(4,711)</b>	<b>(5,185)</b>	<b>(5,846)</b>	<b>(6,877)</b>	<b>(9,334)</b>
<b>Gross profit</b>	<b>2,960</b>	<b>3,912</b>	<b>4,994</b>	<b>6,750</b>	<b>8,557</b>
Other Income	176	131	139	139	139
Other gain/(losses),net	(8)	(5)	(5)	(5)	(5)
Selling & marketing exps	(271)	(282)	(389)	(478)	(657)
Admin and other exps	(413)	(427)	(477)	(578)	(727)
<b>EBIT</b>	<b>2,443</b>	<b>3,314</b>	<b>4,262</b>	<b>5,828</b>	<b>7,308</b>
Financial income	10	49	15	19	36
Financial cost	(256)	(304)	(223)	(245)	(264)
Exceptional	-	-	-	-	-
Pre-tax profit	<b>2,246</b>	<b>3,093</b>	<b>4,088</b>	<b>5,635</b>	<b>7,113</b>
Income tax	(205)	(294)	(429)	(592)	(747)
Minority interests	(179)	(382)	(401)	(421)	(442)
<b>Net profit</b>	<b>1,863</b>	<b>2,416</b>	<b>3,257</b>	<b>4,622</b>	<b>5,924</b>

### Cash flow summary

YE 31 Dec (HK\$ mn)	FY18A	FY19A	FY20E	FY21E	FY22E
<b>EBIT</b>	<b>2,443</b>	<b>3,314</b>	<b>4,262</b>	<b>5,828</b>	<b>7,308</b>
Depreciation and amortization	707	795	944	1,140	1,376
Change in working capital	(255)	(1,818)	(611)	415	(789)
Taxation	(237)	(281)	(422)	(590)	(745)
Others	(348)	(427)	(606)	(638)	(662)
<b>Net cash from operating</b>	<b>2,310</b>	<b>1,583</b>	<b>3,567</b>	<b>6,155</b>	<b>6,487</b>
Capex	(2,248)	(1,382)	(4,212)	(3,435)	(3,020)
Joint ventures investments	17	23	-	-	-
Others	(805)	(904)	-	-	-
<b>Net cash from investment</b>	<b>(3,035)</b>	<b>(2,262)</b>	<b>(4,212)</b>	<b>(3,435)</b>	<b>(3,020)</b>
Equity raised	(456)	2,087	-	-	-
Change of Debts	837	(2,086)	805	647	562
Dividend paid	(1,095)	(761)	(1,460)	(1,891)	(2,531)
Others	888	2,887	401	421	442
<b>Net cash from financing</b>	<b>174</b>	<b>2,127</b>	<b>(254)</b>	<b>(823)</b>	<b>(1,527)</b>
<b>Net change in cash</b>	<b>(551)</b>	<b>1,447</b>	<b>(899)</b>	<b>1,897</b>	<b>1,940</b>
Cash at the beginning	1,381	784	2,221	1,322	3,220
Exchange difference	(46)	(10)	-	-	-
<b>Cash at the end of the year</b>	<b>784</b>	<b>2,221</b>	<b>1,322</b>	<b>3,220</b>	<b>5,160</b>

### Balance sheet

YE 31 Dec (HK\$ mn)	FY18A	FY19A	FY20E	FY21E	FY22E
<b>Non-current assets</b>	<b>17,089</b>	<b>18,930</b>	<b>22,363</b>	<b>24,645</b>	<b>26,316</b>
Fixed assets	15,804	16,711	19,979	22,274	23,919
Land use rights	320	-	-	-	-
Inv. in JV and Associate	433	404	404	404	404
Others	532	1,815	1,979	1,966	1,993
<b>Current assets</b>	<b>6,803</b>	<b>9,467</b>	<b>9,914</b>	<b>12,361</b>	<b>16,558</b>
Cash	784	2,221	1,322	3,220	5,160
Account receivable	4,154	5,437	6,058	6,222	7,991
Inventory	430	410	558	721	982
Amount due from	4	6	-	-	-
Others	1,432	1,394	1,976	2,200	2,426
<b>Current liabilities</b>	<b>6,737</b>	<b>5,834</b>	<b>6,898</b>	<b>8,083</b>	<b>9,776</b>
Trade and other payable	2,780	2,220	3,052	3,939	5,366
Amount due	102	91	91	91	91
Current income tax liabilities	48	102	104	106	109
Borrowings	3,773	3,389	3,616	3,912	4,176
Others	34	32	35	35	35
<b>Non-current liabilities</b>	<b>5,096</b>	<b>3,989</b>	<b>4,608</b>	<b>4,999</b>	<b>5,338</b>
Borrowings	4,997	3,921	4,536	4,927	5,267
Other payables	89	57	54	54	54
Deferred tax liabilities	11	12	17	17	17
<b>Total net assets</b>	<b>12,059</b>	<b>18,573</b>	<b>20,771</b>	<b>23,924</b>	<b>27,759</b>
<b>Minority Interest</b>	<b>1,625</b>	<b>4,396</b>	<b>4,798</b>	<b>5,219</b>	<b>5,661</b>
<b>Shareholders' equity</b>	<b>10,434</b>	<b>14,177</b>	<b>15,974</b>	<b>18,705</b>	<b>22,098</b>

### Key ratios

YE 31 Dec	FY18A	FY19A	FY20E	FY21E	FY22E
<b>Sales mix (%)</b>					
Solar glass sales	72.5	74.4	79.2	81.3	84.5
Solar power generation	25.0	24.5	19.6	17.4	14.3
EPC services	2.5	1.1	1.2	1.3	1.2
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Profit &amp; loss ratios (%)</b>					
Gross margin	38.6	43.0	46.1	49.5	47.8
Pre-tax margin	29.3	34.0	37.7	41.4	39.8
Net margin	24.3	26.6	30.0	33.9	33.1
Effective tax rate	9.1	9.5	10.5	10.5	10.5
<b>Balance sheet ratios</b>					
Current ratio (x)	1.0	1.6	1.4	1.5	1.7
Quick ratio (x)	0.9	1.6	1.4	1.4	1.6
Cash ratio (x)	0.1	0.4	0.2	0.4	0.5
Debtors turnover days	197.9	192.4	193.5	164.5	145.0
Inventory turnover days	31.1	29.6	30.2	33.9	33.3
Creditors turnover days	221.6	176.0	164.6	185.5	181.9
Total debt / equity ratio (%)	72.7	39.4	36.0	34.0	31.3
Net debt / equity ratio (%)	76.5	35.9	38.6	26.3	16.0
<b>Returns (%)</b>					
ROE	17.9	17.0	20.4	24.7	26.8
ROA	7.8	8.5	10.1	12.5	13.8
<b>Per share</b>					
EPS (HK\$)	0.25	0.30	0.41	0.57	0.72
DPS (HK\$)	0.12	0.14	0.20	0.27	0.35
BVPS (HK\$)	1.36	1.85	1.98	2.29	2.70

Source: Company data, CMBIS estimates

# Disclosures & Disclaimers

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

<b>OUTPERFORM</b>	: Industry expected to outperform the relevant broad market benchmark over next 12 months
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## CMB International Securities Limited

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

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