

# Xinyi Solar (968 HK)

## Price hike reflects strong PV glass demand

PV glass price is lifted by ~RMB4/sq m from Sep 2020. The price hike reflects ~15% increment to 3.2mm PV glass model. Both the price hike timing and the range exceed our expectations. According to our communication with YYS, the pricing adjustment mainly reflects tightened PV supply on the back of thrilling downstream demand from PV module manufacturers.

- **PV glass price is lifted by RMB3-4/sq m from Sep.** Main stream 3.2mm PV glass price now reaches RMB30/sq m, while price for thinner 2.5/2.0mm model is also lifted to RMB27/24/sq m respectively. The pricing adjustment reflects ~15% hike to 3.2mm model, which would be more than enough to cover 3-4.5% costs impact from soda ash price hike (Soda ash price surged 20-30% in Aug). We expect YYS will have significant margin expansion with pricing adjustment in the remaining four months of 2020.
- **Pricing adjustment is demand driven.** PV glass supply has continued to tighten from Aug. Downstream PV module demand was once uncertain due to fluctuated product pricing along the supply chain caused by supply disruption from Poly-Si material. In late Aug, stabilizing PV cell price has strengthened market confidence, and we think PV model price at around RMB1.5-1.6/watt is acceptable to downstream PV farm developers. We think market demand recovery will further tighten PV glass supply and trigger price hike. We expect PV glass price to stay strong in 2H20.
- **2021E supply to remain tight.** YYS delayed releasing its 2x1k tonnes capacity to 2021, due to COVID-19 impacts and recent flood in Anhui province. According to our estimates, we expect PV demand to increase 33% in 2021E, while effective PV glass supply would be less than 20%, implying PV glass supply to remain tight in 2021E. We believe that will likely sustain current high price or even further price rise in 2021E.
- **Raise TP by 17.0% to HK\$11.70; maintain BUY.** We raise our PV glass ASP assumption up by 0.8%/2.2%/0.8% in 2020-22E. Our net profit projection is lifted by 3.7%/6.3%/2.2% to HK\$3,378/4,911/6,054mn respectively. We observed valuation expansion on China solar sector from Jun-Aug on improving earnings outlook and solid 1H20 earnings release. We think sector valuation experienced a re-rating from 15-20x forward P/E to 25-30x. Our DCF TP is raised by 17.0% to HK\$11.70, reflecting FY20/21E 28.1x/19.5x PER. In a sector up cycle, we believe YYS' valuation is still attractive. Maintain BUY.

### Earnings Summary

(YE 31 Dec)	FY18A	FY19A	FY20E	FY21E	FY22E
Revenue (HK\$ mn)	7,672	9,096	10,906	13,873	18,006
YoY growth(%)	(19.5)	18.6	19.9	27.2	29.8
Net income (HK\$ mn)	1,863	2,416	3,378	4,911	6,054
EPS (HK\$)	0.25	0.30	0.42	0.60	0.74
YoY growth (%)	(24)	22	37	45	23
Consensus EPS (HK\$)	N/A	N/A	0.40	0.52	0.62
P/E (x)	40.2	33.0	24.1	16.6	13.5
P/B (x)	7.3	5.7	5.1	4.3	3.6
Yield (%)	1.2	1.4	2.0	2.9	3.6
ROE (%)	18.3	17.3	21.1	25.9	27.0
Net gearing (%)	76.5	40.3	41.9	28.1	17.7

Source: Company data, Bloomberg, CMBIS estimates

## BUY (Maintain)

Target Price	HK\$11.70
(Previous TP	HK\$10.00)
Up/Downside	+17.0%
Current Price	HK\$10.00

### China Solar Sector

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### 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%

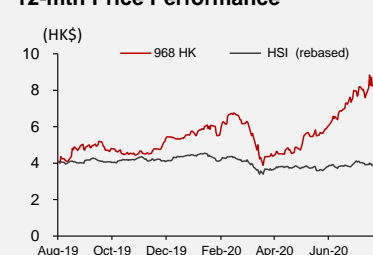
Source: HKEx

### 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

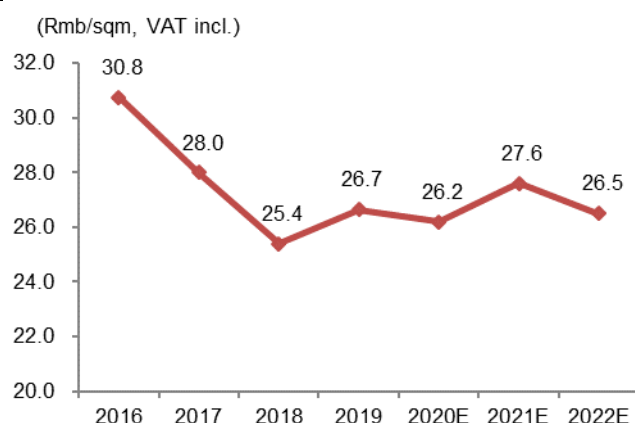


Source: Bloomberg

### Auditor: PwC

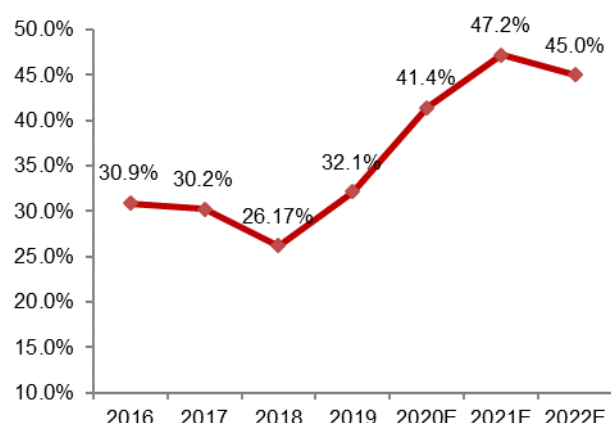
### Related Reports

1. Xinyi Solar (968 HK) - Shining 1H20 from PV glass sales" - 4 Aug 2020
2. "China Solar Sector - Supply chain updates: overseas demand visibility is still low" - 19 May 2020
3. "Xinyi Solar (968 HK) - FY19 earnings in line; new capacity delay by 1Q" - 17 Mar 2020

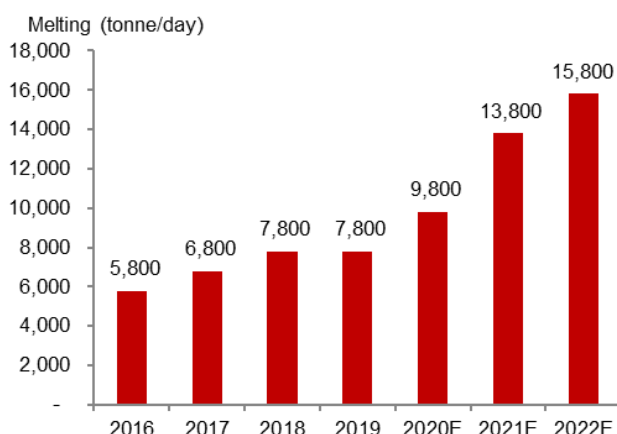
**Figure 1: Solar glass ASP estimates and projection**

Source: CMBIS estimates

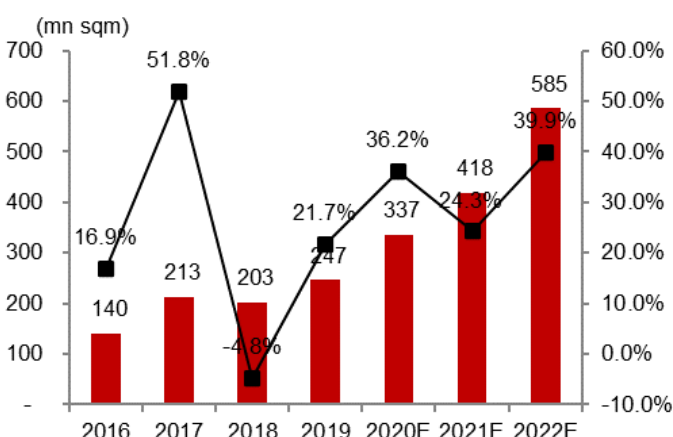
Note: 2016 - 19 ASP is estimated based on sales over shipment projection

**Figure 2: We expect solar glass GPM to surge with product mix change towards 2.0mm PV glass**

Source: Company data, CMBIS estimates

**Figure 3: Solar glass melting capacity**

Source: Company data, CMBIS estimates

**Figure 4: PV glass sales projection**

Source: Company data, CMBIS estimates

**Figure 5: Earnings revision**

	Old			New			Change%		
	2020	2021	2022	2020	2021	2022	2020	2021	2022
PV processed glass ASP (RMB/sqm)	26.0	27.0	26.3	26.2	27.6	26.5	0.8%	2.2%	0.8%
PV glass sales volume (mn sqm)	337	418	585	337	418	585	0.0%	0.0%	0.0%
Revenue (HK\$, mn)	10,840	13,626	17,891	10,906	13,873	18,006	0.6%	1.8%	0.6%
Net income(HK\$, mn)	3,257	4,622	5,924	3,378	4,911	6,054	3.7%	6.3%	2.2%
EPS(HK\$)	0.40	0.57	0.72	0.42	0.60	0.74	3.7%	6.3%	2.2%
<b>Consensus earnings</b>							Our est. vs. consensus		
Net profit (HK\$, mn)				3,205	4,271	5,044	5.4%	15.0%	20.0%
EPS(HK\$)				0.40	0.52	0.62	4.7%	14.7%	19.1%

Source: CMBIS estimates

**Figure 6: Our DCF valuation**

DCF Valuation	2022	2023	2024	2025	2026	2027	2028	2029	2030
Turnover (HK\$ mn)	18,006	21,212	22,305	23,389	24,464	25,533	26,598	27,659	28,721
Solar glass	15,224	17,977	18,846	19,689	20,506	21,299	22,068	22,814	23,536
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	29.8%	17.8%	5.2%	4.9%	4.6%	4.4%	4.2%	4.0%	3.8%
EBIT (HK\$ mn)	7,451	8,458	8,805	9,142	9,470	9,790	10,103	10,412	10,716
EBIT margin(%)	41.4%	39.9%	39.5%	39.1%	38.7%	38.3%	38.0%	37.6%	37.3%
Tax rate (%)	15.3%	15.5%	15.7%	15.7%	15.8%	15.8%	15.8%	15.8%	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	(2,066)	(1,122)	(383)	(217)	(172)	(171)	(170)	(170)	(170)
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>3,240</b>	<b>5,048</b>	<b>6,034</b>	<b>6,408</b>	<b>6,646</b>	<b>6,820</b>	<b>6,973</b>	<b>7,104</b>	<b>7,214</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>2,992</b>	<b>4,304</b>	<b>4,750</b>	<b>4,659</b>	<b>4,461</b>	<b>4,227</b>	<b>3,991</b>	<b>3,754</b>	<b>3,520</b>
<b>Terminal value</b>	<b>140,242</b>								
<b>Terminal EV/EBITDA</b>	<b>11.19</b>								
<b>Discounted terminal value</b>	<b>68,434</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%
<b>WACC</b>	<b>8.3%</b>

**Valuations ( HK\$ mn )**

<b>Discounted Terminal Value</b>	<b>68,434</b>
Terminal perpetual growth(%)	3.0%
Terminal EV/EBITDA	11.19
Total discount FCF	36,658
Enterprise Value	105,092
Discount FCF(% of total)	34.9%
Terminal value (% of total)	65.1%
Add: Cash & cash equivalent	3,511
Less: Total debt	(8,839)
Non-controlling interest	(5,219)
Equity Value (HKD mn)	94,545
<b>Fair value per share(HK\$)</b>	<b>11.70</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>10,906</b>	<b>13,873</b>	<b>18,006</b>
Solar glass sales	5,562	6,767	8,655	11,331	15,224
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>(5,775)</b>	<b>(6,793)</b>	<b>(9,302)</b>
<b>Gross profit</b>	<b>2,960</b>	<b>3,912</b>	<b>5,131</b>	<b>7,080</b>	<b>8,704</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)	(479)	(587)	(730)
<b>EBIT</b>	<b>2,443</b>	<b>3,314</b>	<b>4,397</b>	<b>6,149</b>	<b>7,451</b>
Financial income	10	49	15	21	38
Financial cost	(256)	(304)	(223)	(245)	(264)
Exceptional	-	-	-	-	-
Pre-tax profit	<b>2,246</b>	<b>3,093</b>	<b>4,223</b>	<b>5,958</b>	<b>7,258</b>
Income tax	(205)	(294)	(443)	(626)	(762)
Minority interests	(179)	(382)	(401)	(421)	(442)
<b>Net profit</b>	<b>1,863</b>	<b>2,416</b>	<b>3,378</b>	<b>4,911</b>	<b>6,054</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>4,397</b>	<b>6,149</b>	<b>7,451</b>
Depreciation and amortization	707	795	944	1,140	1,376
Change in working capital	(255)	(1,818)	(610)	418	(791)
Taxation	(237)	(281)	(436)	(624)	(760)
Others	(348)	(427)	(606)	(637)	(660)
<b>Net cash from operating</b>	<b>2,310</b>	<b>1,583</b>	<b>3,689</b>	<b>6,446</b>	<b>6,616</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	-	-	0
Change of Debts	837	(2,086)	805	647	562
Dividend paid	(1,095)	(761)	(1,489)	(1,989)	(2,632)
Others	888	2,887	401	421	442
<b>Net cash from financing</b>	<b>174</b>	<b>2,127</b>	<b>(283)</b>	<b>(921)</b>	<b>(1,627)</b>
<b>Net change in cash</b>	<b>(551)</b>	<b>1,447</b>	<b>(806)</b>	<b>2,090</b>	<b>1,968</b>
Cash at the beginning	1,381	784	2,221	1,415	3,506
Exchange difference	(46)	(10)	-	-	-
<b>Cash at the end of the year</b>	<b>784</b>	<b>2,221</b>	<b>1,415</b>	<b>3,506</b>	<b>5,473</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>10,029</b>	<b>12,730</b>	<b>16,910</b>
Cash	784	2,221	1,415	3,506	5,473
Account receivable	4,154	5,437	6,076	6,289	8,022
Inventory	430	410	563	737	990
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>6,921</b>	<b>8,170</b>	<b>9,817</b>
Trade and other payable	2,780	2,220	3,075	4,026	5,406
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>20,863</b>	<b>24,206</b>	<b>28,071</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>16,066</b>	<b>18,988</b>	<b>22,410</b>

### Key ratios

YE 31 Dec	FY18A	FY19A	FY20E	FY21E	FY22E
<b>Sales mix (%)</b>					
Solar glass sales	72.5	74.4	79.4	81.7	84.6
Solar power generation	25.0	24.5	19.4	17.1	14.2
EPC services	2.5	1.1	1.2	1.2	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	47.0	51.0	48.3
Pre-tax margin	29.3	34.0	38.7	42.9	40.3
Net margin	24.3	26.6	31.0	35.4	33.6
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	1.6	1.7
Quick ratio (x)	0.9	1.6	1.4	1.5	1.6
Cash ratio (x)	0.1	0.4	0.2	0.4	0.6
Debtors turnover days	197.9	192.4	192.6	162.7	145.0
Inventory turnover days	31.1	29.6	30.7	34.9	33.9
Creditors turnover days	221.6	176.0	167.3	190.8	185.0
Total debt / equity ratio (%)	72.7	42.7	39.1	36.5	33.6
Net debt / equity ratio (%)	76.5	40.3	41.9	28.1	17.7
<b>Returns (%)</b>					
ROE	17.9	17.0	21.0	25.9	27.0
ROA	7.8	8.5	10.4	13.1	14.0
<b>Per share</b>					
EPS (HK\$)	0.25	0.30	0.42	0.60	0.74
DPS (HK\$)	0.12	0.14	0.20	0.29	0.36
BVPS (HK\$)	1.36	1.85	1.99	2.32	2.74

Source: Company data, CMBIS estimates

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