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Xinyi Solar (968 HK)

Another price hike to boost FY20/21E earnings

PV glass prices were lifted by another 16-24% in late Sep, reflecting strong PV module demand. We think PV glass supply is extremely tight, as some smaller manufacturers are offering higher price quotation with real market demand. Based on current PV glass melting capacity in operation, we estimate current PV glass output is equivalent to above 13.4GW/mo and 161GW/yr. In 4Q20, there is no additional supply, while the earliest new capacity is likely to come mild in late Jan. We lifted PV glass ASP assumption by 4.6%/8.7% in 2020/2021E, which we expect to drive XYS' earnings up by 14.0/23.4% to HK$3,851mn/6,058mn, respectively. **Our DCF TP on XYS is lifted by 32.5% to HK$15.5. Maintain BUY.**

- **PV glass price is lifted by another RMB4-6/sq m in Sep.** Main stream 3.2mm PV glass price now reaches RMB35-37/sq m, while price for thinner 2.5/2.0mm model is lifted even more to RMB31/28 per sq m respectively. The pricing adjustment reflects ~16.7-24% hike to previous pricing, which was mainly driven by thrilling downstream model demand, while major costs of PV glass remains largely flat in Sep.
- **Strong demand to sustain high price in 2021E.** We expect XYS will have significant margin expansion to above 50% in 4Q20, and we think the ultra-high profitability is likely to sustain for the majority of 2021E. According to SCI99, there were 47 furnaces with 28,060 tonnes daily melting capacity in operation by end-Sep, equivalent to annualized 161GW PV glass supply according to our estimate. With reference to current PV glass capacity addition plan, we expect effective PV glass supply will still be tight if demand growth hits faster than 15% in the first 9M in 2021E. We expect high PV glass price will likely to sustain in at least 1H21.
- **Raise FY20/21E earrings by 14.0%/23.4%.** Based on recent price hike, we lifted XYS' PV glass ASP by 4.6%/8.7% in 2020/21E, and we think higher ASP will boost GPM of the Company's PV glass sales to 44.8%/52.1% respectively. Our earnings projection is revised up by 14.0%/23.4% to HK$3,851/6,058mn. Our FY20-22E EPS projection is 13.6%/33.0%/27.4% higher than consensus estimates.
- **Lift DCF TP by 32.5% to HK$15.5; maintain BUY.** Our DCF TP reflects 32.2x/21x FY20/21E PER. We think our TP for XYS is in reasonable range in a sector up cycle comparing with 25-30x peers valuation range. Given solid fundamental supports, we expect XYS' strong momentum to continue.

Earnings Summary

(YE 31 Dec)	FY18A	FY19A	FY20E	FY21E	FY22E
Revenue (HK$ mn)	7,672	9,096	11,461	15,410	19,349
YoY growth(%)	(19.5)	18.6	26.0	34.5	25.6
Net income (HK$ mn)	1,863	2,416	3,851	6,058	6,848
EPS (HK$)	0.25	0.30	0.47	0.71	0.80
YoY growth (%)	(24)	22	56	50	13
Consensus EPS (HK$)	N/A	N/A	0.41	0.54	0.63
P/E (x)	53.2	43.7	28.0	18.6	16.5
P/B (x)	9.7	7.5	5.9	4.9	4.2
Yield (%)	0.9	1.1	1.7	2.6	2.9
ROE (%)	18.3	17.3	21.1	26.6	25.8
Net gearing (%)	76.5	40.3	19.1	7.8	1.2

Source: Company data, Bloomberg, CMBIS estimates

BUY (Maintain)

Target Price	**HK$15.50**
(Previous TP	HK$11.70)
Up/Downside	**+17.1%**
Current Price	**HK$13.24**

China Solar Sector

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

Stock Data

Mkt Cap (HK$ mn)	112,657
Avg 3 mths t/o (HK$ mn)	320
52w High/Low (HK$)	13.36/3.72
Total Issued Shares (mn)	8,509

Source: Bloomberg

Shareholding Structure

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

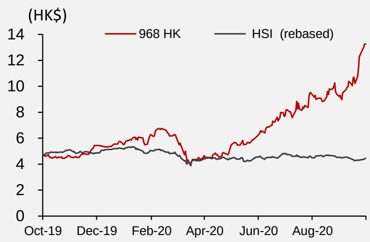
Source: HKEx

Share Performance

	Absolute	Relative
1-mth	40.8%	45.0%
3-mth	66.8%	83.2%
6-mth	196.0%	193.1%
12-mth	175.7%	196.8%

Source: Bloomberg

12-mth Price Performance



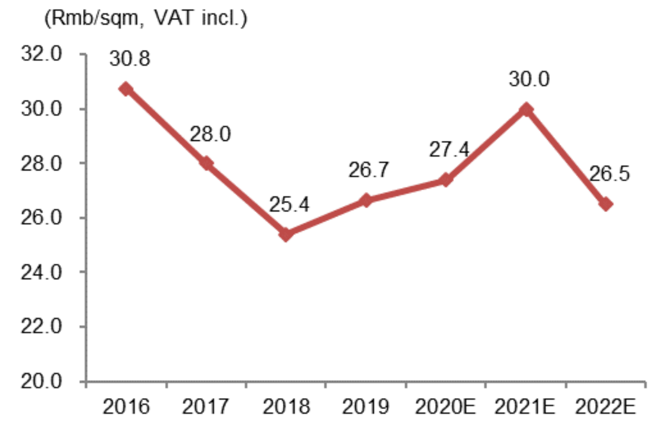
Source: Bloomberg

Auditor: PwC

Related Reports

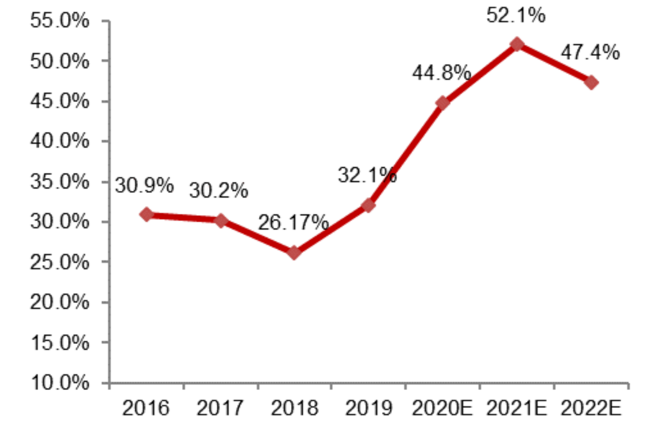
1. Xinyi Solar (968 HK) - Price hike reflects strong PV glass demand" – 2 Sep 2020
2. Xinyi Solar (968 HK) - Shining 1H20 from PV glass sales" –4 Aug 2020
3. "China Solar Sector - Supply chain updates: overseas demand visibility is still low" – 19 May 2020

Figure 1: Solar glass ASP estimates and projection



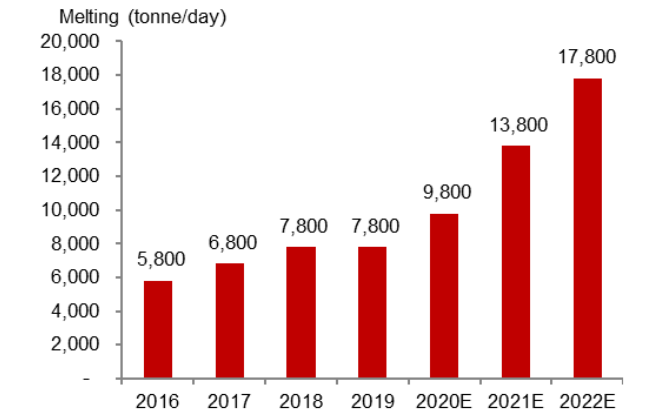
Source: CMBIS estimates
Note: 2016 - 19 ASP is estimated based on sales over shipment projection

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



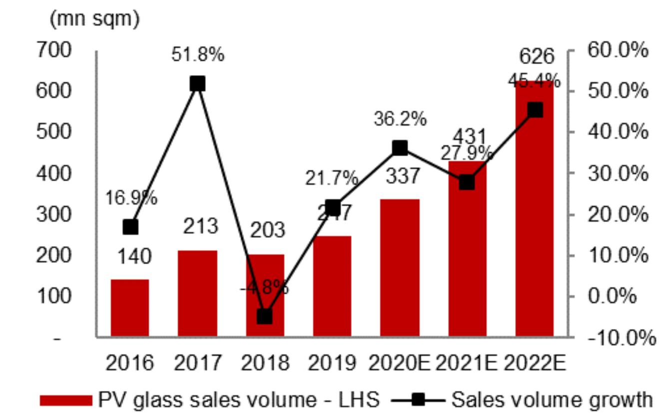
Source: Company data, CMBIS estimates

Figure 3: Solar glass melting capacity



Source: Company data, CMBIS estimates

Figure 4: PV glass sales projection



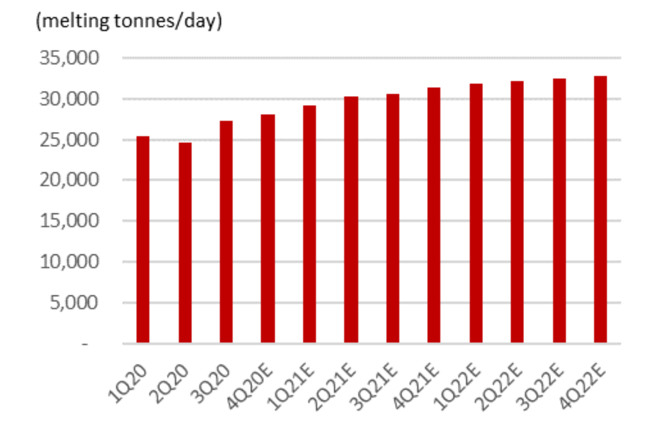
Source: Company data, CMBIS estimates

Figure 5: Major PV glass capacity expansion plan (Unit: daily melting tonnes)

Company	Ticker	1Q21E	2Q21E	3Q21E	4Q21E	1Q22E	2Q22E	3Q22E	4Q22E
Xinyi Solar	968 HK	1000	1000	1000	1000	1000	1000	1000	1000
Flat Glass	6865 HK/601865 CH	2200	2200		1200				
CSG Holding	000012 CH						1200		1200
Kibing Group	601636 CH						1200		

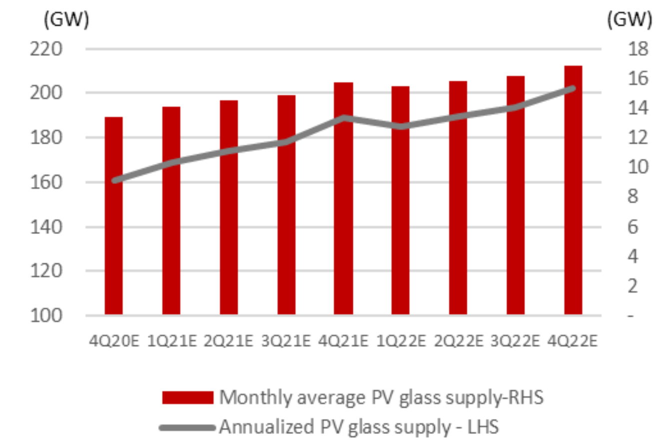
Source: Company data, CMBIS estimates

Figure 6: We expect effective daily melting capacity will be released in a gradual pace in 2021E



Source: SCI99, CMBIS estimates

Figure 7: Our estimates of effective PV glass supply (GW equivalent) in each quarter from 4Q20E to 4Q22E: 1H20 PV glass supply will likely to remain tight



Source: CMBIS estimates
Note: estimates based on
1) 75% sector average PV glass yield;
2) 205w/sq m PV glass power density with 2% increment by each quarter;
3) 8% channel inventory reserve rate; and
4) Gradually increasing 2.0mm glass penetration rate

Figure 8: Earnings revision

	Old			New			Change%		
	2020	2021	2022	2020	2021	2022	2020	2021	2022
PV processed glass ASP (RMB/sqm)	26.2	27.6	26.5	27.4	30.0	26.5	4.6%	8.7%	0.0%
PV glass sales volume (mn sqm）	337	418	585	337	431	626	0.0%	2.9%	7.0%
Revenue (HK$, mn)	10,906	13,873	18,006	11,461	15,410	19,349	5.1%	11.1%	7.5%
Net income(HK$, mn)	3,378	4,911	6,054	3,851	6,058	6,849	14.0%	23.4%	13.1%
EPS(HK$)	0.42	0.60	0.74	0.47	0.72	0.81	14.0%	23.4%	13.1%
Consensus earnings							Our est. vs. consensus		
Net profit (HK$, mn)				3,326	4,444	5,233	15.8%	36.3%	30.9%
EPS(HK$)				0.41	0.54	0.64	13.6%	33.0%	27.4%

Source: CMBIS estimates

Figure 9: Our DCF valuation

DCF Valuation	2022	2023	2024	2025	2026	2027	2028	2029	2030
Turnover (HK$ mn)	19,349	24,593	30,020	31,790	34,251	36,669	39,046	41,385	43,689
Solar glass	16,516	21,487	26,512	28,036	30,234	32,370	34,445	36,461	38,418
Solar Farm	2,611	2,817	3,191	3,405	3,633	3,876	4,136	4,413	4,708
EPC	222	289	318	349	384	423	465	512	563
Turnover growth	*25.6%*	*27.1%*	*22.1%*	*5.9%*	*7.7%*	*7.1%*	*6.5%*	*6.0%*	*5.6%*
EBIT (HK$ mn)	8,382	10,488	12,041	12,396	12,961	13,459	13,891	14,263	14,576
EBIT margin(%)	*43.3%*	*42.6%*	*40.1%*	*39.0%*	*37.8%*	*36.7%*	*35.6%*	*34.5%*	*33.4%*
Tax rate (%)	15.2%	15.4%	15.5%	15.6%	15.6%	15.6%	15.6%	15.6%	15.7%
Depreciation -HKD mn	1,157	1,267	1,390	1,502	1,617	1,736	1,859	1,985	2,115
Change in working capital	(1,969)	(1,835)	(1,900)	(354)	(394)	(387)	(380)	(374)	(369)
CAPEX (HKD mn)	(2,088)	(2,188)	(2,296)	(2,446)	(2,611)	(2,792)	(2,991)	(3,210)	(3,451)
Free cash flow	**4,205**	**6,117**	**7,369**	**9,170**	**9,557**	**9,919**	**10,210**	**10,433**	**10,588**
Years	1	2	3	4	5	6	7	8	9
Discount factor	0.92	0.85	0.78	0.72	0.66	0.60	0.56	0.51	0.47
Discount free cash flow	**3,867**	**5,173**	**5,730**	**6,557**	**6,285**	**5,998**	**5,678**	**5,336**	**4,979**
Terminal value	**189,870**								
Terminal EV/EBITDA	11.38								
Discounted terminal value	**89,292**								
Terminal perpetual growth	3%								

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	40.0%
WACC	8.7%

Valuations （HK$ mn）	
Discounted Terminal Value	**89,292**
Terminal perpetual growth(%)	3.0%
Terminal EV/EBITDA	11.38
Total discount FCF	49,603
Enterprise Value	138,895
Discount FCF(% of total)	35.7%
Terminal value (% of total)	64.3%
Add: Cash & cash equivalent	7,123
Less: Total debt	(8,887)
Non-controlling interest	(5,279)
Equity Value (HKD mn)	131,853
Fair value per share(HK$)	**15.50**

Source: CMBIS estimates

Financial Summary

Income statement

YE 31 Dec (HK$ mn)	FY18A	FY19A	FY20E	FY21E	FY22E
Revenue	**7,672**	**9,096**	**11,461**	**15,410**	**19,349**
Solar glass sales	5,562	6,767	9,179	12,856	16,516
Solar power generation	1,920	2,228	2,150	2,383	2,611
EPC services	189	101	131	171	222
Cost of sales	**(4,711)**	**(5,185)**	**(5,775)**	**(6,967)**	**(9,625)**
Gross profit	**2,960**	**3,912**	**5,686**	**8,443**	**9,723**
Other Income	176	131	139	139	139
Other gain/(losses),net	(8)	(5)	(5)	(5)	(5)
Selling & marketing exps	(271)	(282)	(389)	(491)	(699)
Admin and other exps	(413)	(427)	(498)	(638)	(776)
EBIT	**2,443**	**3,314**	**4,933**	**7,448**	**8,382**
Financial income	10	49	29	50	71
Financial cost	(256)	(304)	(223)	(246)	(266)
Exceptional	-	-	-	-	-
Pre-tax profit	**2,246**	**3,093**	**4,772**	**7,286**	**8,221**
Income tax	(205)	(294)	(501)	(765)	(863)
Minority interests	(179)	(382)	(420)	(462)	(509)
Net profit	**1,863**	**2,416**	**3,851**	**6,058**	**6,849**

Cash flow summary

YE 31 Dec (HK$ mn)	FY18A	FY19A	FY20E	FY21E	FY22E
EBIT	**2,443**	**3,314**	**4,933**	**7,448**	**8,382**
Depreciation and amortization	707	795	944	1,139	1,412
Change in working capital	(255)	(1,818)	(620)	366	(863)
Taxation	(237)	(281)	(494)	(763)	(861)
Others	(348)	(427)	(612)	(650)	(697)
Net cash from operating	**2,310**	**1,583**	**4,152**	**7,539**	**7,373**
Capex	(2,248)	(1,382)	(4,187)	(3,698)	(3,281)
Joint ventures investments	17	23	-	-	-
Others	(805)	(904)	-	-	-
Net cash from investment	**(3,035)**	**(2,262)**	**(4,187)**	**(3,698)**	**(3,281)**
Equity raised	(456)	2,087	2,683	-	-
Change of Debts	837	(2,086)	800	700	614
Dividend paid	(1,095)	(761)	(1,603)	(2,378)	(3,097)
Others	888	2,887	420	462	509
Net cash from financing	**174**	**2,127**	**2,300**	**(1,216)**	**(1,975)**
Net change in cash	**(551)**	**1,447**	**2,265**	**2,626**	**2,118**
Cash at the beginning	1,381	784	2,221	4,487	7,112
Exchange difference	(46)	(10)	-	-	-
Cash at the end of the year	**784**	**2,221**	**4,487**	**7,112**	**9,230**

Balance sheet

YE 31 Dec (HK$ mn)	FY18A	FY19A	FY20E	FY21E	FY22E
Non-current assets	**17,089**	**18,930**	**22,335**	**24,909**	**26,805**
Fixed assets	15,804	16,711	19,954	22,513	24,382
Land use rights	320	-	-	-	-
Inv. in JV and Associate	433	404	404	404	404
Others	532	1,815	1,977	1,993	2,019
Current assets	**6,803**	**9,467**	**13,297**	**16,906**	**21,227**
Cash	784	2,221	4,487	7,112	9,230
Account receivable	4,154	5,437	6,238	6,716	8,411
Inventory	430	410	597	836	1,074
Amount due from	4	6	-	-	-
Others	1,432	1,394	1,976	2,243	2,512
Current liabilities	**6,737**	**5,834**	**7,103**	**8,723**	**10,308**
Trade and other payable	2,780	2,220	3,259	4,559	5,858
Amount due	102	91	91	91	91
Current income tax liabilities	48	102	104	106	109
Borrowings	3,773	3,389	3,614	3,931	4,216
Others	34	32	35	35	35
Non-current liabilities	**5,096**	**3,989**	**4,605**	**5,027**	**5,398**
Borrowings	4,997	3,921	4,533	4,956	5,327
Other payables	89	57	54	54	54
Deferred tax liabilities	11	12	17	17	17
Total net assets	**12,059**	**18,573**	**23,924**	**28,066**	**32,325**
Minority Interest	**1,625**	**4,396**	**4,817**	**5,279**	**5,788**
Shareholders' equity	**10,434**	**14,177**	**19,107**	**22,787**	**26,537**

Key ratios

YE 31 Dec	FY18A	FY19A	FY20E	FY21E	FY22E
Sales mix (%)					
Solar glass sales	72.5	74.4	80.1	83.4	85.4
Solar power generation	25.0	24.5	18.8	15.5	13.5
EPC services	2.5	1.1	1.1	1.1	1.1
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Profit & loss ratios (%)					
Gross margin	38.6	43.0	49.6	54.8	50.3
Pre-tax margin	29.3	34.0	41.6	47.3	42.5
Net margin	24.3	26.6	33.6	39.3	35.4
Effective tax rate	9.1	9.5	10.5	10.5	10.5
Balance sheet ratios					
Current ratio (x)	1.0	1.6	1.9	1.9	2.1
Quick ratio (x)	0.9	1.6	1.8	1.8	2.0
Cash ratio (x)	0.1	0.4	0.6	0.8	0.9
Debtors turnover days	197.9	192.4	185.9	153.4	142.7
Inventory turnover days	31.1	29.6	31.8	37.5	36.2
Creditors turnover days	221.6	176.0	173.1	204.8	197.5
Total debt / equity ratio (%)	72.7	42.7	34.1	31.7	29.5
Net debt / equity ratio (%)	76.5	40.3	19.2	7.8	1.2
Returns (%)					
ROE	17.9	17.0	20.2	26.6	25.8
ROA	7.8	8.5	10.8	14.5	14.3
Per share					
EPS (HK$)	0.25	0.30	0.47	0.72	0.81
DPS (HK$)	0.12	0.14	0.22	0.34	0.39
BVPS (HK$)	1.36	1.85	2.36	2.70	3.14

Source: Company data, CMBIS estimates

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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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