China / Hong Kong Company Update

Flat Glass Group Co., Ltd.

Bloomberg: 6865 HK Equity | 601865 CH Equity | Reuters: 6865.HK | 601865.SS

Refer to important disclosures at the end of this report

DBS Group Research . Equity

28 Mar 2023

H: BUY

Last Traded Price (27 Mar 2023):HK$20.70(HSI : 19,568)
Price Target 12-mth: HK$28.00 (35.3% upside)

A: BUY

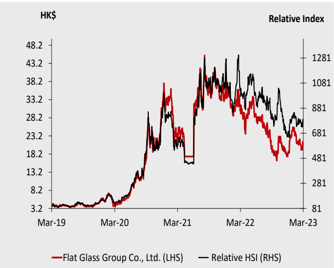
Last Traded Price (27 Mar 2023):RMB32.66(CSI300 Index : 4,012)
Price Target 12-mth: RMB38.00 (16.4% upside) (Prev RMB44.00)

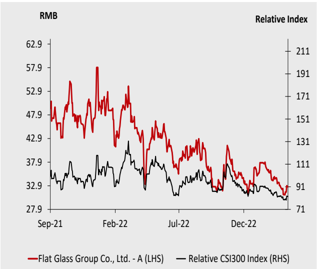
Analyst
Patricia Yeung +852 36684189 patricia_yeung@dbs.com
Ian Chui +852 36684174 ianchui@dbs.com

What's New

- FY22 net profit largely flat as revenue growth was offset by GPM compression, in line
- Plans to add 25% solar glass production capacity
- Early indications suggest demand could remain strong
- Maintain BUY with H/A-share TP of HK$28/Rmb38

Price Relative





Forecasts and Valuation (H Shares)

FY Dec (RMBm)	2021A	2022A	2023F	2024F
Turnover	8,713	15,461	18,757	23,116
EBITDA	3,163	3,625	4,899	6,454
Pre-tax Profit	2,380	2,153	2,947	3,891
Net Profit	2,120	2,123	2,653	3,502
EPS (RMB)	0.99	0.99	1.24	1.63
EPS (HK$)	1.13	1.13	1.41	1.86
EPS Gth (%)	19.0	0.0	24.8	32.0
Diluted EPS (HK$)	1.13	1.13	1.41	1.86
DPS (HK$)	0.00	0.29	0.37	0.48
BV Per Share (HK$)	6.31	7.48	8.59	10.45
PE (X)	18.3	18.3	14.7	11.1
P/Cash Flow (X)	66.9	219.5	18.1	7.7
P/Free CF (X)	nm	nm	nm	nm
EV/EBITDA (X)	12.7	13.2	10.8	8.6
Net Div Yield (%)	0.0	1.4	1.8	2.3
P/Book Value (X)	3.3	2.8	2.4	2.0
Net Debt/Equity (X)	0.1	0.6	0.9	0.8
ROAE(%)	22.3	16.4	17.6	19.6
Earnings Rev (%):			2	0
Consensus EPS (RMB)			1.41	1.84
Other Broker Recs:		B:17	S:1	H:2

Source of all data on this page: Company, DBS Bank (Hong Kong) Limited ("DBS HK"), Thomson Reuters

Balancing optimism and caution in uncertain times

Investment Thesis

Flat Glass Group (FGG) is one of the top two solar glass producers globally, accounting for c.23-24% of production capacity in China. FGG's strategy focuses on solar glass, accounting for c.88% of revenue. Recently the company has been attempting to stabilize its raw material supply via acquisition of sand mines.

Capacity expansion continues. FGG's revenue growth depends on increasing sales volume from solar installations. The company plans to increase production capacity to 24,000tons/day in 2023, up c.25% from 2022. With solar glass ASP stable at Rmb26/sm, we reckon FGG's GPM should gradually improve by 1-2ppts from c.22% in FY22-23.

Pulling multiple levers to improve margin. Near term share price could be driven by improving margins. On the revenue side, FGG continues to improve its product mix by increasing the proportion of higher margin thin (2.0mm) solar glass products. On the cost side, FGG's acquisition of sand mines should help stabilize quartzite supply. A decline in fuel (natural gas, fuel oil, soda ash) costs would add upside to FGG's gross margin which could act as a positive catalyst.

Maintain Buy with H/A-share TP of HK$28/Rmb38. We adjust our FY23 EPS estimate up by 2% to reflect slightly lower solar glass ASP offset by more optimistic gross margin assumptions. Our target prices are pegged to target PEs of 20x/31x (H/A-share) on FY23F EPS. The target PE multiples are pegged to c.0.5SD below the average since Sep-20.

Key Risks

Unexpected slowdown in solar installations in China. Margin pressure on increasing input costs (fuel and raw materials).

At A Glance

Issued Capital - H shares (m shs)	450
- Non H shrs (m shs)	1,697
H shs as a % of Total	21
Total Mkt Cap (HK$m/US$m)	72,502 / 9,236
Major Shareholders (%)	
Ruan (Hongliang)	25.9
Ruan (Zeyun)	20.7
Jiang (Jinhua)	19.1
Major H Shareholders (As % of H shares)	
Schroder Investment Management Ltd. (SIM)	9.5
JPMorgan Asset Management (Asia Pacific) Ltd.	7.4
Pacific Asset Management Co., Ltd.	7.0
CICC Pucheng Investment Co., Ltd.	5.3
Public Investment Fund	5.0
H Shares-Free Float (%)	65.8
3m Avg. Daily Val. (US$m)	10.8
GICS Industry: Materials / Chemicals	

ed- JS / sa- CS /AH

WHAT'S NEW

Guardedly hopeful

Flat Glass Group's (FGG) FY22 net profit rose by 0.1% y-o-y to Rmb2.12bn, in-line with our estimate. Key discrepancies were higher than expected surcharges, general & administrative expense, and finance expense. However, this was offset by lower-than-expected taxation. DPS of Rmb0.23 was declared (FY21: none).

Solid volume growth offset by margin compression. FY22 revenue rose 77% y-o-y led by the core solar glass business. Revenue from solar glass soared 92% y-o-y, almost entirely due to 92.6% sales volume growth. Solar glass ASP remained largely flat at Rmb26-27/sm (3.2mm product equivalent). Higher solar glass revenue was offset by gross margin compressing by 13.4ppts y-o-y to 22%, in line with our forecast. Gross margin compression was mostly due to higher raw material and fuel costs.

Capacity expansion continues. As at Dec-22, FGG's total solar glass production capacity increased by 59% to 19,400 tonnes/day (FY21: 12,200). As at Mar-22 FGG had c.23% market share compared to c.83,580 tonnes capacity in China, according to survey data from Sublime Information. FGG has a long-term goal to achieve c.30% market share in solar glass. In 2023, FGG plans to add 4,800 tonnes/day capacity consisting of four furnaces with 1,200 tonnes capacity each. FGG's solar glass production capacity could increase by c.25% to c.24,000 tonnes/day by end of 2023.

Signs of firm demand. We note FGG's inventory days have decreased to c.71 days in FY22 (FY21: 89), pointing to improving demand. The company is cautiously optimistic that the resolution of the polysilicon supply bottleneck could help drive further solar installations. This should benefit FGG's solar glass sales volume. Furthermore, FGG notes there are early signs that inventory levels are falling throughout the solar glass industry.

Pulling on multiple levers to improve margin. In terms of product mix, the higher margin 2.0mm solar glass product is c.50% of FGG's product mix. For capacity expansion in 2024 and beyond, FGG has plans to add 1,600 tonnes/day furnaces. FGG estimates these larger furnaces are 10-15% more energy efficient compared to the older 1,000 tonnes/day furnaces. The larger furnaces would also help FGG maintain a cost advantage over lower-tier solar glass players. On the raw material front, FGG reiterated that the acquisition of sand mines in 2022 will enable the company to achieve c.70% self-sufficiency for its quartzite supply. FGG anticipates the mines to last c.10-15 years. For soda ash, the company remains vigilant on price trends and sees possible easing of supply tightness in 2H23.

FGG's gearing (net debt to total equity) rose to c.64% (Jun-22: 44%). The increase in gearing is due mainly to the acquisition of sand mines in FY22. This is reasonable as the acquisition helps FGG secure its long-term raw material supply.

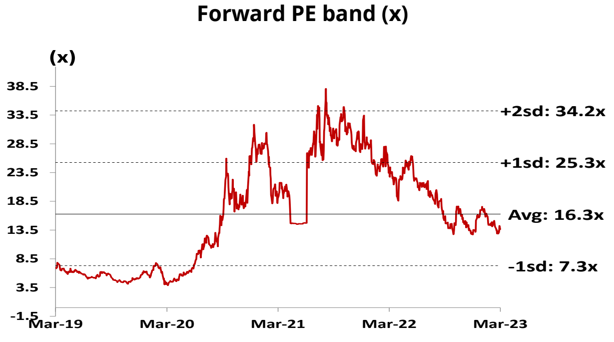
In our latest FY23F EPS estimate, we adjust our solar glass ASP assumption down slightly by 4%. However, we adjust solar glass gross segment margin assumption up 1-2ppts. We reckon FGG's solar glass segment gross margins could improve from c.23.3% in FY22 to 24%/25% in FY23/24.

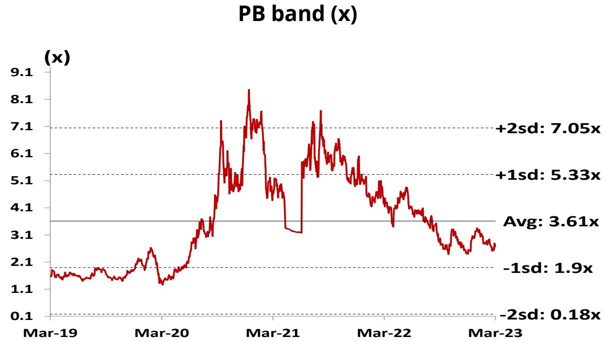
Maintain Buy with H/A-share TPs of HK$28/Rmb38. Our target prices are pegged to target P/E ratios of 20x/31x (H/A-share) on FY23F EPS. The target P/E ratios are c.0.5SD below the average since Sep-20.

Company Background

Flat Glass Group ("FGG") listed its H-shares in Hong Kong in Nov 2015 (6865.HK). In Feb 2019, the company listed its A-shares in Shanghai (601865.CH). FGG derived >88% of FY22 revenue and gross profit from photovoltaic glass (PV glass). Other glass products include household glass, architectural glass, and float glass. The company also sells mining products such as quartzite ore.

Historical PE and PB band





Source: Thomson Reuters, DBS HK

Key Assumptions

FY Dec	2020A	2021A	2022A	2023F	2024F
Solar glass blended ASP (Rmb/ton)	3,770.0	3,756.0	3,375.0	3,250.0	3,312.5
Solar glass GPM (%)	49.4	35.7	23.3	24.0	25.0

Source: Company, DBS HK

Segmental Breakdown (RMB m)

FY Dec	2020A	2021A	2022A	2023F	2024F
Revenues (RMB m)					
PV Glass	5,226	7,122	13,682	16,849	21,062
Household Glass	327	381	350	360	371
Architectural Glass	531	711	596	613	632
Float Glass	76	394	335	345	355
Mining Products	64	66	439	527	633
Other Business	38	40	59	61	63
Total	6,260	8,713	15,461	18,757	23,116
Gross profit (RMB m)					
PV Glass	2,582	2,542	3,190	4,044	5,265
Household Glass	88	117	63	68	74
Architectural Glass	148	235	84	98	114
Float Glass	24	153	(68)	14	14
Mining Products	36	38	105	158	190
Other Business	35	8	40	30	31
Total	2,914	3,093	3,413	4,413	5,689
Gross profit Margins (%)					
PV Glass	49.4	35.7	23.3	24.0	25.0
Household Glass	27.1	30.7	18.0	19.0	20.0
Architectural Glass	27.9	33.0	14.1	16.0	18.0
Float Glass	32.1	38.8	(20.3)	4.0	4.0
Mining Products	56.2	57.3	23.8	30.0	30.0
Other Business	92.6	20.0	67.0	49.7	50.0
Total	46.5	35.5	22.1	23.5	24.6

Source: Company, DBS HK

Income Statement (RMB m)

FY Dec	2020A	2021A	2022A	2023F	2024F
Revenue	6,260	8,713	15,461	18,757	23,116
Cost of Goods Sold	(3,347)	(5,620)	(12,048)	(14,344)	(17,427)
Gross Profit	2,914	3,093	3,413	4,413	5,689
Other Opng (Exp)/Inc	(907)	(659)	(1,017)	(1,200)	(1,472)
Operating Profit	2,006	2,434	2,396	3,213	4,217
Other Non Opg (Exp)/Inc	9	(2)	(2)	2	2
Associates & JV Inc	0	0	0	0	0
Net Interest (Exp)/Inc	(142)	(53)	(240)	(268)	(328)
Dividend Income	0	0	0	0	0
Exceptional Gain/(Loss)	0	0	0	0	0
Pre-tax Profit	1,874	2,380	2,153	2,947	3,891
Tax	(245)	(260)	(30)	(295)	(389)
Minority Interest	0	0	0	0	0
Preference Dividend	0	0	0	0	0
Net Profit	1,629	2,120	2,123	2,653	3,502
Net Profit before Except.	1,629	2,120	2,123	2,653	3,502
EBITDA	2,435	3,163	3,625	4,899	6,454
Growth					
Revenue Gth (%)	30.2	39.2	77.4	21.3	23.2
EBITDA Gth (%)	92.8	29.9	14.6	35.2	31.7
Opg Profit Gth (%)	123.2	21.3	(1.6)	34.1	31.2
Net Profit Gth (%)	127.1	30.2	0.1	25.0	32.0
Margins & Ratio					
Gross Margins (%)	46.5	35.5	22.1	23.5	24.6
Opg Profit Margin (%)	32.0	27.9	15.5	17.1	18.2
Net Profit Margin (%)	26.0	24.3	13.7	14.1	15.2
ROAE (%)	27.7	22.3	16.4	17.6	19.6
ROA (%)	15.0	13.1	8.1	7.6	8.5
ROCE (%)	20.9	16.8	11.2	10.0	11.0
Div Payout Ratio (%)	25.8	0.0	26.0	26.0	26.0
Net Interest Cover (x)	14.2	46.4	10.0	12.0	12.9

Source: Company, DBS HK

Balance Sheet (RMB m)

FY Dec	2020A	2021A	2022A	2023F	2024F
Net Fixed Assets	3,334	6,316	11,226	15,598	20,413
Invts in Associates & JVs	88	90	100	100	100
Other LT Assets	3,275	4,778	8,674	9,051	9,563
Cash & ST Invts	1,590	2,843	2,932	1,090	1,560
Inventory	479	2,276	2,396	2,907	3,583
Debtors	1,959	2,632	6,203	7,684	8,645
Other Current Assets	1,541	1,147	850	907	983
Total Assets	12,266	20,083	32,382	37,338	44,847
ST Debt	778	2,171	4,398	5,398	6,398
Creditors	2,008	3,344	5,065	4,779	5,598
Other Current Liab	544	650	1,071	1,213	1,400
LT Debt	1,375	1,968	7,478	9,478	11,478
Other LT Liabilities	325	141	338	338	338
Shareholder's Equity	7,235	11,810	14,032	16,133	19,635
Minority Interests	0	0	0	0	0
Total Cap. & Liab.	12,266	20,083	32,382	37,338	44,847
Non-Cash Wkg. Capital	1,427	2,062	3,313	5,508	6,212
Net Cash/(Debt)	(563)	(1,296)	(8,943)	(13,785)	(16,315)
Debtors Turn (avg days)	147.1	96.2	104.3	135.1	128.9
Creditors Turn (avg days)	262.0	199.7	141.9	141.9	124.7
Inventory Turn (avg days)	60.0	102.9	78.8	76.5	78.0
Asset Turnover (x)	0.6	0.5	0.6	0.5	0.6
Current Ratio (x)	1.7	1.4	1.2	1.1	1.1
Quick Ratio (x)	1.1	0.9	0.9	0.8	0.8
Net Debt/Equity (X)	0.1	0.1	0.6	0.9	0.8
Net Debt/Equity ex MI (X)	0.1	0.1	0.6	0.9	0.8
Capex to Debt (%)	90.0	90.8	67.9	40.6	39.3
Z-Score (X)	NA	NA	NA	NA	NA

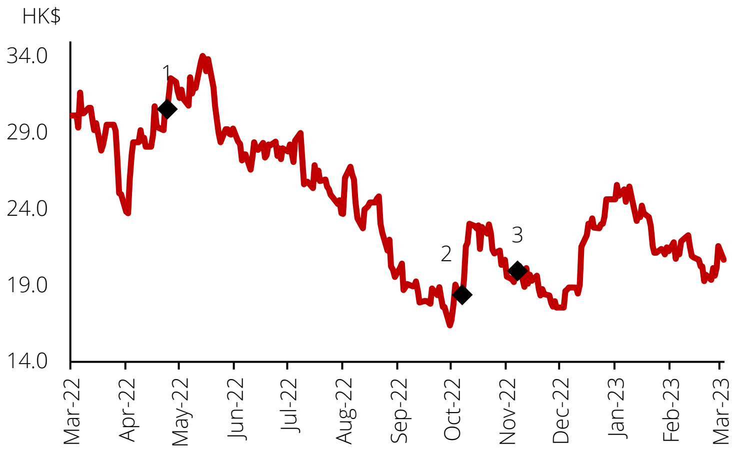
Source: Company, DBS HK

Cash Flow Statement (RMB m)

FY Dec	2020A	2021A	2022A	2023F	2024F
Pre-Tax Profit	1,874	2,380	2,153	2,947	3,891
Dep. & Amort.	407	546	1,313	1,684	2,235
Tax Paid	(245)	(260)	(30)	(295)	(389)
Assoc. & JV Inc/(loss)	0	0	0	0	0
(Pft)/ Loss on disposal of FAs	113	(47)	40	0	0
Chg in Wkg.Cap.	(527)	(2,121)	(3,692)	(2,194)	(705)
Other Operating CF	80	83	393	0	0
Net Operating CF	1,701	580	177	2,142	5,032
Capital Exp.(net)	(1,939)	(3,760)	(8,061)	(6,033)	(7,033)
Other Invts.(net)	(443)	152	204	0	0
Invts in Assoc. & JV	0	0	0	0	0
Div from Assoc & JV	0	0	0	0	0
Other Investing CF	7	45	(12)	(399)	(529)
Net Investing CF	(2,374)	(3,563)	(7,869)	(6,432)	(7,562)
Div Paid	(245)	(414)	(741)	(552)	0
Chg in Gross Debt	1,887	2,167	8,476	3,000	3,000
Capital Issues	29	2,510	0	0	0
Other Financing CF	(302)	(308)	119	0	0
Net Financing CF	1,369	3,954	7,854	2,448	3,000
Currency Adjustments	281	281	(72)	0	0
Chg in Cash	977	1,252	90	(1,842)	470
Opg CFPS (RMB)	1.14	1.26	1.80	2.02	2.67
Free CFPS (RMB)	(0.12)	(1.49)	(3.68)	(1.81)	(0.93)

Source: Company, DBS HK

H Share - Target Price & Ratings 12-mth History

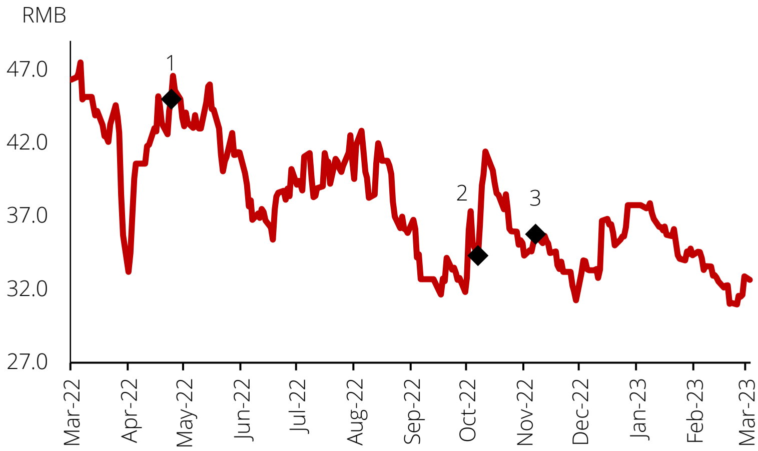


S.No.	Date	Closing Price	Target Price	Rating
1	18-May-22	HK$30.55	HK$45.00	BUY
2	31-Oct-22	HK$18.80	HK$30.00	BUY
3	1-Dec-22	HK$20.15	HK$28.00	BUY

Source: DBS HK

Analyst: Patricia Yeung
Ian Chui

A Share - Target Price & Ratings 12-mth History



S.No.	Date	Closing Price	Target Price	Rating
1	18-May-22	RMB45.00	RMB53.00	HOLD
2	31-Oct-22	RMB35.17	RMB44.00	BUY
3	1-Dec-22	RMB35.19	RMB44.00	BUY

Source: DBS HK

Analyst: Patricia Yeung
Ian Chui

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STRONG BUY (>20% total return over the next 3 months, with identifiable share price catalysts within this time frame)
BUY (>15% total return over the next 12 months for small caps, >10% for large caps)
HOLD (-10% to +15% total return over the next 12 months for small caps, -10% to +10% for large caps)
FULLY VALUED (negative total return, i.e., > -10% over the next 12 months)
SELL (negative total return of > -20% over the next 3 months, with identifiable share price catalysts within this time frame)

**Share price appreciation + dividends*

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Sources for all charts and tables are DBS HK unless otherwise specified.

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DBS Bank (Hong Kong) Limited

13th Floor One Island East, 18 Westlands Road, Quarry Bay, Hong Kong

Tel: (852) 3668-4181, Fax: (852) 2521-1812

DBS Regional Research Offices

HONG KONG
DBS Bank (Hong Kong) Ltd
Contact: Dennis Lam
13th Floor One Island East,
18 Westlands Road, Quarry Bay, Hong Kong
Tel: 852 3668 4181
Fax: 852 2521 1812
e-mail: dbsvhk@dbs.com

SINGAPORE
DBS Bank Ltd
Contact: Paul Yong
12 Marina Boulevard,
Marina Bay Financial Centre Tower 3
Singapore 018982
Tel: 65 6878 8888
e-mail: groupresearch@dbs.com
Company Regn. No. 196800306E

INDONESIA
PT DBS Vickers Sekuritas (Indonesia)
Contact: Maynard Priajaya Arif
DBS Bank Tower
Ciputra World 1, 32/F
Jl. Prof. Dr. Satrio Kav. 3-5
Jakarta 12940, Indonesia
Tel: 62 21 3003 4900
Fax: 6221 3003 4943
e-mail: indonesiaresearch@dbs.com

THAILAND
DBS Vickers Securities (Thailand) Co Ltd
Contact: Chanpen Sirithanarattanakul
989 Siam Piwat Tower Building,
9th, 14th-15th Floor
Rama 1 Road, Pathumwan,
Bangkok Thailand 10330
Tel. 66 2 857 7831
Fax: 66 2 658 1269
e-mail: research@th.dbs.com
Company Regn. No 0105539127012
Securities and Exchange Commission, Thailand