

SA Xinyi Glass



Timothy Lee, CFA

timothy.lee@clsa.com +852 2600 8461

Alec So, CFA +852 2600 8742

14 December 2017

China Materials

Reuters 0868.HK Bloomberg 868 HK

Priced on 13 December 2017 HS CEI @ 11,519.8

12M hi/lo HK\$9.53/6.11

12M price target	HK\$10.70
±% potential	+20%
Shares in issue	3,891.8m
Free float (est.)	43.9%
Market cap	US\$4,580m
3M average daily	volume
HK\$122.3m	(US\$15.7m)

Foreign s'holding 52.5%

Major shareholders Lee Yin Yee 21.6% Tung Ching Sai 9.9%

Stock performance (%) 1M зм 12M Absolute 11.9 6.0 44.0 Relative 13.6 2.9 21.5 Abs (US\$) 43.1 11.9 6.1 10.1 -(HK\$) 200 (%)8.7 150 7.3 100 5.9 50 4.5 0 Dec-15 Dec-16 Jun-17 Jun-16 Xinyi Glass (LHS) Rel to CEI (RHS) Source: Bloomberg

www.clsa.com

More constructive outlook

Likely supply reduction to support float glass price

We see a better outlook for float glass supply, supported by the recent closures in northern China amid pollution control with possibly more to come, plus a potential peak overhaul period in 2018-19, offsetting the potential deceleration in demand to give a stable industry dynamic and support prices. XYG is also proceeding with its overseas expansion plans, with the Malaysia/Canada plants likely to offer cost advantages. Coupled with manageable costs, we lift our 2018/19 forecasts and target to HK\$10.70 (was HK\$9.50), and retain BUY on XYG.

Accelerated pollution-driven closures

Pollution control has hastened the closure of float glass capacity with nine production lines shut down in Shahe, Hebei in November, or an about 4% cut in market capacity and a roughly 1.7% surge in the national float glass price. We estimate that Shahe still has 24,200t/d capacity under operation (15.9% of China). Any additional closures will support prices further despite the approaching winter slack season.

Peak overhaul period likely in 2018-19

We estimate 54,810t/d, or about 36.0% of total operating float glass capacity in China started operation during 2009-11, so part of this could be overhauled in 2018-19, considering some eight years of normal operating time, suggesting potentially further supply cuts, though the overhaul schedule could be deferred amid the currently healthy market. Given that overhaul takes six to nine months, our base case is for accelerated closures to offset slowing demand growth and result in balanced demand/supply; any fasterthan-expected reduction would be positive to prices.

Capacity expansion ahead

The planned third phase float glass lines in Malaysia (3,600-4,000t/d)/Canada (1,800-2,000t/d) could start contribution in 2020, where we estimate production costs to be 4%/8% lower versus China respectively coupled with higher ASPs, thus likely higher GPMs. XYG also plans to add OEM auto glass capacity in China, which could help drive sales growth despite lower GPM than aftermarket products.

Manageable costs; maintain BUY with higher target

We also expect manageable costs, with the 5% winter natural gas price hike offset by previous cost cuts plus rising float glass ASPs, and the soda ash price also started to decline from the peak. We lift our 2018/19 core profit by 3.0%/5.3% to factor in higher float glass/construction glass ASPs and auto glass volume. We raise our target to HK\$10.70 (from HK\$9.50) using the blended PE/PB approach.

Financials					
Year to 31 December	15A	16A	17CL	18CL	19CL
Revenue (HK\$m)	11,460	12,848	14,747	16,041	17,278
Rev forecast change (%)	-	-	0.0	2.0	4.5
Adjusted net profit (HK\$m)	1,734	3,055	3,682	4,263	4,879
NP forecast change (%)	-	-	-	3.0	5.3
Adjusted EPS (HK¢)	43.0	76.5	92.8	106.3	121.7
CL/consensus (10) (EPS%)	-	-	99	102	113
Adj EPS growth (% YoY)	51.7	77.8	21.3	14.6	14.4
Adjusted PE (x)	20.7	11.6	9.6	8.4	7.3
Dividend yield (%)	3.0	4.5	5.0	5.8	6.6
ROE (%)	16.9	24.8	26.1	26.3	26.3
Net debt/equity (%)	37.2	37.0	38.5	27.6	16.7
Source: CLSA					

Find CLSA research on Bloomberg, Thomson Reuters, Factset and CapitalIQ - and profit from our evalu@tor proprietary database at clsa.com For important disclosures please refer to page 13.







Source: glassinfo.com.cn, CLSA

Figure 3



Source: glassinfo.com.cn, CLSA



Source: glassinfo.com.cn, CLSA

Figure 4

Float glass operating capacity - northeast China MoM



Source: glassinfo.com.cn, CLSA





Source: glassinfo.com.cn, CLSA



Source: glassinfo.com.cn, CLSA



Source: glassinfo.com.cn, CLSA

Figure 6 Float glass operating capacity - north China MoM 6% – North 4% 2% 0% -2% -4% -6% -8% -10% -12% -14% Jul 16 4 15 15 14 14 14 15 15 16 16 16 17 17 1 Jan : oct InC Ъ In oct Apr Jan Apr oct Jan Apr oct Jan Apr

Source: glassinfo.com.cn, CLSA



Source: glassinfo.com.cn, CLSA





Figure 12

8%

6%

4%

2%

0%

-2%

-4%

-6%

-8%

12%

10%



Source: glassinfo.com.cn, CLSA

Source: glassinfo.com.cn, CLSA

(t/d)

Figure 15

8,000

7,000

6,000

5,000

4,000

3,000

2,000

1,000

0

2 14 4 14 4 15

Dec



Float glass operating capacity - northwest China

15 12 Dec 15

Mar Jun Sep Northwest



Jun Source: glassinfo.com.cn, CLSA

Sep Dec

Source: glassinfo.com.cn, CLSA Figure 14

Float glass operating capacity - south China MoM

- South

Jan Apr Jul Oct Jan Apr Jul Oct Jan Apr Jul Oct Jan Apr Jul Oct

Float glass operating capacity - southwest China MoM

Southwest

8% 6% 4% 2% 0% -2% -4% -6% -8% 4 14 14 15 15 15 5 16 16 16 16 17 14 17 Jan Apr Apr Jul Apr Ы g Jan ١Ľ g Jan lan Apr ö

Source: glassinfo.com.cn, CLSA

14 December 2017

Mar

Mar 17

17 17

Jun

Sep

16

16

Dec 1

16 16

Mar

Jun Sep 17 17

luC ö



Peak overhaul period likely in 2018-19 We had expected limited new capacity growth for the float glass industry, due More production lines are about the time to do to the suspension of approval of new projects since 2011, and the likely overhaul limited number of overhaul production lines returning to the market. In 2018-19, we may even see the possibility of an increasing number of production lines which entered into operation in 2009-11 (amid approvals given under the Rmb4tn stimulus) going into overhaul, given normal float glass production lines are subject to the need to overhaul after approximately eight years of operation. There is no available timetable for these production lines to shut down. c.36.0% of total operating capacity Meanwhile, we screened the currently operating capacity in China, and commenced operation estimate that those commenced operation between 2009-11 (or even earlier) back to 2009-11, thus amounted to 54,810t/d, or about 36.0% of total operating capacity in China about the time to do at present, although the currently healthy market with high profitability could overhaul make producers defer their overhaul schedule. In particular, eastern (about 57.5%) and southern (about 43.1%) regions saw a higher proportion of capacity commenced during that period of time. XYG is set to benefit given

Figure 17			
Float glass ca	apacity commenced in 2009-11 (or earlier)		
Region	Capacity commenced in 2009-11 (or earlier) (t/d)	Current operating capacity (t/d)	As % of current operating capacity
Northeast	600	10,800	5.6%
North	14,000	40,600	34.5%
East	17,450	30,330	57.5%
Central	5,310	24,060	22.1%
South	10,300	23,900	43.1%
Southwest	5,100	15,500	32.9%
Northwest	2,050	6,850	29.9%
Total	54,810	152,040	36.0%

Source: glassinfo.com.cn, CLSA

XYG's float glass capacity in eastern (Wuhu) and southern (Dongguan, Jiangmen) accounts for c.50% of total 18CL capacity







some 50% of capacity located in these two regions in 18CL (considering they could have one to two lines suspending production for overhaul as well).

Source: CLSA, company



Potentially faster supply reduction to help offset demand uncertainty

Our base case is a balanced demand/supply

Note that overhaul usually takes six to nine months to complete. We believe accelerated closures could provide a strong support to the float glass industry, especially when the market is concerned about the potential weakening glass demand as a result of the slowing property market. Our base case is for accelerated closures to help offset the slowing demand, resulting in a balanced demand/supply, but any faster-than-expected suspension would result in a better demand/supply dynamic and thus support float glass prices.



Source: WIND, glassinfo.com.cn, CLSA

Besides, the reduction of float glass production lines also suggests reduction in demand for soda ash, which could help ease some upward pressure on soda ash (which is about 25% of float glass production cost). All these could help the float glass GPM risk to skew towards the upside.



Float glass prices stayed at high level







YTD property sales/new starts started to slow



Source: NBS, CLSA

Figure 24





Figure 23 Glass demand lags behind property sales





Source: NBS, CLSA

Figure 25 Domestic soda-ash prices



Source: WIND, CLSA



Expanding float glass capacity in Malaysia and Canada	
where there are cost benefits	

Capacity expansion ahead

For its roughly 50% float-glass capacity expansion plan by 2020 (about 8,500t/d), on top of the second phase in Malaysia (two lines at 2,000t/d) under construction, management shared that other new plants would potentially be in: 1) Malaysia as the third phase under planning, with capacity of 3,600-4,000t/d (four lines) potentially coming late-2019/2020 the earliest (thus contribution to sales in 2020 the earliest); and 2) Canada (near Toronto) with a framework agreement just signed, with capacity of 1,800-2,000t/d (two lines) coming in 2020 the earliest.

We believe the major advantage of the Malaysia and Canada plants is on cost, especially natural gas and soda ash (with Malaysia also using soda ash imported from the USA). Labour cost in Canada is much higher but it is a smaller part of float glass Cogs. We roughly estimate that float glass production costs in Malaysia and Canada are about 4% and 8% lower than that in China respectively. This, combined with higher ASPs, suggests likely better margins than the China plants. Besides, standard corporate income tax rates are similar in all three regions, meanwhile in Malaysia XYG can enjoy tax credit equivalent to total investment amounts.

Figure 28

Estimate of float g	jiass unit c	ust - china vs ca		malaysia		
Float glass unit	<u>China (bas</u>	ed on FY17CL)	<u>Can</u>	ada (theoretical case)	<u>Malaysia</u>	(theoretical case)
cost	HK\$/t	As % of total	HK\$/t	Note	HK\$/t	Note
Natural gas	377	38%	170	c.55% cheaper than China currently	336	c.11% cheaper than China currently
Soda ash	270	27%	230	c.15% cheaper than China currently	230	c.15% cheaper than China currently
Silica sand	125	13%	125		125	
Depreciation	109	11%	184	Unit Capex c.69% higher than China	150	Unit Capex c.38% higher than China
Salaries and benefits	69	7%	172	Staff cost c.2.5x that in China	69	
Electricity and others	47	5%	34	Electricity cost c.23% cheaper than China currently	43	
Total	996	100%	914		952	
vs Cost in China			(8.3%)		(4.5%)	
Corporate income tax rate	25%		26.5%			x rebate equivalent to the tent to the tent amount)
Source: CLSA						



Planning new OEM auto glass capacity in Tianjin	XYG is also planning to add OEM auto glass capacity in China, which management expects to win orders from OEM volume growth as well as from taking shares from competitors amid competitive pricing. This would likely help speed up revenue growth, but GPM would also be dragged slightly given lower GPM for OEM auto glass vs aftermarket. Meanwhile, XYG also recorded stronger export auto glass orders (about three months backlog on hand vs about two months same period last year).
Manageable costs	Manageable costs; maintain BUY with higher target We also see the recent natural gas price increase as manageable - based on our discussion with management, the winter natural gas price hike is 5% blended for its plants (except the Guangdong ones which are using imported LNG), similar to last year's level despite the recent severe gas shortage in China, applicable from 1 Nov 2017 to 31 Mar 2018, which would be partly offset by the previous natural gas price cut in early September. For imported LNG, it is also priced based on the contracted price (linked to the three-month average of Singapore's fuel oil price) with also an about 5% increase from July's level, but not based on the spot LNG price which soared significantly recently. Thus, we still expect the increased float glass prices in 2H to more than offset the cost hike and help GPM expand HoH (we forecast 32.3% in 2H17 vs 30.1% in 1H17), particularly as soda ash prices started to decline from peak, even though auto glass and construction glass would be dragged. Meanwhile, XYG also raised prices for construction glass by c.2-3% recently for products to be delivered next year, which would help pass on some costs.
Lifting forecasts and target	We keep our 2017 core profit forecast unchanged, but lift our 2018/19 core profit by 3.0%/5.3% to factor in higher float glass ASP/construction glass ASP and auto glass volume amid capacity expansion.
	We also lift our target price to HK\$10.70 (from HK\$9.50) based on the blended PE/PB approach: for PE, we apply the same 10x on 19CL EPS (from avg 18-19CL); for PB we use 2.1x (from 2.0x on better ROE) on 18CL BVPS (from average 17-18CL).
Figure 29	

Figure 29	
Earnings	revisions

	17CL			18CL			19CL		
	New	Old	Change	New	Old	Change	New	Old	Change
Revenue (HK\$ m)	14,747	14,747	0.0%	16,041	15,734	2.0%	17,278	16,533	4.5%
- Automobile glass products	3,841	3,841	0.0%	4,005	3,915	2.3%	4,169	3,990	4.5%
- Construction glass	2,665	2,665	0.0%	2,876	2,750	4.6%	2,941	2,813	4.6%
- Float glass (inc. electronic glass)	8,221	8,221	0.0%	9,086	8,993	1.0%	10,094	9,656	4.5%
- Wind farm	19	19	0.0%	75	75	0.0%	75	75	0.0%
Gross profit margin	36.3%	36.3%	0.0 ppt	38.0%	37.5%	0.4 ppt	38.9 %	38.4%	0.5 ppt
- Automobile glass products	47.0%	47.0%	0.0 ppt	46.7%	48.1%	-1.3 ppt	46.5%	48.3%	-1.8 ppt
- Construction glass	35.9%	35.9%	0.0 ppt	37.1%	35.6%	1.5 ppt	37.6%	35.8%	1.7 ppt
- Float glass (inc. electronic glass)	31.4%	31.4%	0.0 ppt	34.1%	33.3%	0.8 ppt	35.9%	34.8%	1.1 ppt
- Wind farm	70.3%	70.3%	0.0 ppt	70.3%	70.3%	0.0 ppt	70.3%	70.3%	0.0 ppt
Core profit (HK\$ m)	3,682	3,682	0.0%	4,263	4,137	3.0%	4,879	4,634	5.3%

Source: CLSA



Valuation of Xinyi Glass

19CL EPS (HK\$)

Target multiple (x)

Fair value (HK\$)

1.22 10.0

12.20

4.31 2.1 9.10 10.70 11.5x/10.1x

Our TP is based on the
blended PE and PB
approach, with higher
multiples amid market
. rerating

18CL BVPS (HK\$)
Target multiple (x)
Fair value (HK\$)
Average (HK\$)
Implying 17/18CL PE
Source: CLSA
Figure 31

Figure 30

PE basis

PB basis

Current market-cap implies 9.8x/8.2x its nonsolar businesses earnings in 17/18CL

Figure 51			
Valuation of Xinyi Glass's non-solar busi	ness		
HK\$m		FY17CL	FY18CL
Net profit of Xinyi Glass		3,682	4,263
Less: after-tax share of profits of Xinyi Solar		(652)	(660)
Non-solar profit	(a)	3,031	3,603
Current market cap of Xinyi Glass	(b)	35,595	35,595
Current market cap of Xinyi Solar	(c)	20,267	20,267
M'cap of Xinyi Glass's non-solar business	(d) = (b) - 29.5%*(c)	29,610	29,610
PE of Xinyi Glass's non-solar business	(e) = (d)/(a)	9.8	8.2
Source: CLSA			



Figure 33



Source: CLSA, Datastream





Source: CLSA, Datastream

Valuation details

We value XYG using a blended PE and PB approach. We apply a target multiple of 10x to 19CL EPS and a target multiple of 2.1x to 18CL BVPS, in line with the historical averages.

Investment risks

Key risks include: 1) Weakening of the property market or even the auto market. Demand for float glass and construction glass is highly dependent on the property market. Besides, despite being a stable business, the auto glass segment is correlated to the global number of vehicles in use, and any significant slowdown in the global auto industry may also affect the segment's performance. 2) Further tightening of credit. Tightening of credit also affects developers' cash flows and progress in construction of property projects. 3) Incremental production costs. A significant surge in natural gas, international crude oil prices and other raw material costs may affect XYG's gross margin if it cannot pass on incremental costs by raising ASP. 4) More capacity additions in the market.





Summary financials

	Summary m					
	Year to 31 December	2015A	2016A	2017CL	2018CL	2019CL
	Summary P&L forecast (Hk	(\$m)				
	Revenue	11,460	12,848	14,747	16,041	17,278
	Op Ebitda	2,313	3,664	4,240	5,030	5,628
Steady earnings growth	Op Ebit	1,518	2,837	3,361	4,037	4,543
ahead with profitability to	Interest income	40	51	71	57	42
stay high	Interest expense	(90)	(128)	(133)	(131)	(90)
Stay Ingh	Other items	912	1,063	1,018	1,053	1,232
	Profit before tax	2,380	3,823	4,318	5,015	5,727
	Taxation	(266)	(607)	(633)	(750)	(844)
	Minorities/Pref divs	0	(3)	(3)	(3)	(3)
	Net profit	2,113	3,213	3,682	4,263	4,880
	Summary cashflow forecast	(HK\$m)				
	Operating profit	1,518	2,837	3,361	4,037	4,543
	Operating adjustments			-	-	.,
	Depreciation/amortisation	795	827	879	994	1,085
	Working capital changes	(207)	(426)	(267)	(140)	(140)
	Net interest/taxes/other	(421)	(784)	(766)	(881)	(934)
	Net operating cashflow	1,685	2,453	3,207	4,009	4,553
Capex mainly on overseas	Capital expenditure	(1,967)	(1,853)	(3,000)	(2,000)	(2,000)
investments and Qianhai	Free cashflow	(282)	600	207	2,000)	2,553
land	Acg/inv/disposals	-	-	-	_,	_,000
	Int, invt & associate div	951	1,112	1,087	1,107	1,271
	Net investing cashflow	(1,016)	(741)	(1,913)	(893)	(729)
	Increase in loans	16	1,646	1,114	(2,401)	(1,342)
	Dividends	(1,029)	(1,622)	(1,780)	(2,061)	(2,358)
	Net equity raised/other	812	(267)	(446)	0	0
	Net financing cashflow	(202)	(244)	(1,113)	(4,462)	(3,701)
	Incr/(decr) in net cash	468	1,468	181	(1,345)	124
	Exch rate movements	-	-	-	-	-
	Opening cash	832	1,300	2,768	2,949	1,604
	Closing cash	1,300	2,768	2,949	1,604	1,728
		-				
	Communication in the last set of the set form					
	Summary balance sheet for			2.040	1 604	1 720
Balance sheet still healthy	Cash & equivalents	1,300	2,768	2,949	1,604	1,728
Balance sheet still healthy	Cash & equivalents Debtors	1,300 1,136	2,768 1,036	1,247	1,356	1,461
Balance sheet still healthy	Cash & equivalents Debtors Inventories	1,300 1,136 1,223	2,768 1,036 1,321	<mark>1,247</mark> 1,475	1,356 1,550	1,461 1,640
Balance sheet still healthy	Cash & equivalents Debtors Inventories Other current assets	1,300 1,136 1,223 1,337	2,768 1,036 1,321 1,412	1,247 1,475 1,858	1,356 1,550 1,858	1,461 1,640 1,858
Balance sheet still healthy	Cash & equivalents Debtors Inventories Other current assets Fixed assets	1,300 1,136 1,223 1,337 11,971	2,768 1,036 1,321 1,412 11,831	1,247 1,475 1,858 14,009	1,356 1,550 1,858 15,069	1,461 1,640 1,858 16,036
Balance sheet still healthy	Cash & equivalents Debtors Inventories Other current assets Fixed assets Intangible assets	1,300 1,136 1,223 1,337 11,971 1,281	2,768 1,036 1,321 1,412 11,831 1,193	1,247 1,475 1,858 14,009 1,136	1,356 1,550 1,858 15,069 1,082	1,461 1,640 1,858 16,036 1,030
Balance sheet still healthy	Cash & equivalents Debtors Inventories Other current assets Fixed assets Intangible assets Other term assets	1,300 1,136 1,223 1,337 11,971 1,281 3,174	2,768 1,036 1,321 1,412 11,831 1,193 4,462	1,247 1,475 1,858 14,009 1,136 4,462	1,356 1,550 1,858 15,069 1,082 4,462	1,461 1,640 1,858 16,036 1,030 4,462
Balance sheet still healthy	Cash & equivalents Debtors Inventories Other current assets Fixed assets Intangible assets Other term assets Total assets	1,300 1,136 1,223 1,337 11,971 1,281 3,174 21,422	2,768 1,036 1,321 1,412 11,831 1,193 4,462 24,022	1,247 1,475 1,858 14,009 1,136 4,462 27,136	1,356 1,550 1,858 15,069 1,082 4,462 26,982	1,461 1,640 1,858 16,036 1,030 4,462 28,215
Balance sheet still healthy	Cash & equivalents Debtors Inventories Other current assets Fixed assets Intangible assets Other term assets Total assets Short-term debt	1,300 1,136 1,223 1,337 11,971 1,281 3,174 21,422 2,514	2,768 1,036 1,321 1,412 11,831 1,193 4,462 24,022 3,165	1,247 1,475 1,858 14,009 1,136 4,462 27,136 3,625	1,356 1,550 1,858 15,069 1,082 4,462 26,982 2,634	1,461 1,640 1,858 16,036 1,030 4,462 28,215 2,081
Balance sheet still healthy	Cash & equivalents Debtors Inventories Other current assets Fixed assets Intangible assets Other term assets Total assets Short-term debt Creditors	1,300 1,136 1,223 1,337 11,971 1,281 3,174 21,422 2,514 740	2,768 1,036 1,321 1,412 11,831 1,193 4,462 24,022 3,165 789	1,247 1,475 1,858 14,009 1,136 4,462 27,136 3,625 887	1,356 1,550 1,858 15,069 1,082 4,462 26,982 2,634 932	1,461 1,640 1,858 16,036 1,030 4,462 28,215 2,081 986
Balance sheet still healthy	Cash & equivalents Debtors Inventories Other current assets Fixed assets Intangible assets Other term assets Total assets Short-term debt Creditors Other current liabs	1,300 1,136 1,223 1,337 11,971 1,281 3,174 21,422 2,514 740 1,705	2,768 1,036 1,321 1,412 11,831 1,193 4,462 24,022 3,165 789 2,046	1,247 1,475 1,858 14,009 1,136 4,462 27,136 3,625 887 2,046	1,356 1,550 1,858 15,069 1,082 4,462 26,982 2,634 932 2,046	1,461 1,640 1,858 16,036 1,030 4,462 28,215 2,081 986 2,046
Balance sheet still healthy	Cash & equivalents Debtors Inventories Other current assets Fixed assets Intangible assets Other term assets Total assets Short-term debt Creditors Other current liabs Long-term debt/CBs	1,300 1,136 1,223 1,337 11,971 1,281 3,174 21,422 2,514 740 1,705 3,514	2,768 1,036 1,321 1,412 11,831 1,193 4,462 24,022 3,165 789 2,046 4,509	1,247 1,475 1,858 14,009 1,136 4,462 27,136 3,625 887 2,046 5,163	1,356 1,550 1,858 15,069 1,082 4,462 26,982 2,634 932 2,046 3,753	1,461 1,640 1,858 16,036 1,030 4,462 28,215 2,081 986 2,046 2,964
Balance sheet still healthy	Cash & equivalents Debtors Inventories Other current assets Fixed assets Intangible assets Other term assets Total assets Short-term debt Creditors Other current liabs Long-term debt/CBs Provisions/other LT liabs	1,300 1,136 1,223 1,337 11,971 1,281 3,174 21,422 2,514 740 1,705 3,514 223	2,768 1,036 1,321 1,412 11,831 1,193 4,462 24,022 3,165 789 2,046 4,509 266	1,247 1,475 1,858 14,009 1,136 4,462 27,136 3,625 887 2,046 5,163 266	1,356 1,550 1,858 15,069 1,082 4,462 26,982 2,634 932 2,046 3,753 266	1,461 1,640 1,858 16,036 1,030 4,462 28,215 2,081 986 2,046 2,964 266
Balance sheet still healthy	Cash & equivalents Debtors Inventories Other current assets Fixed assets Intangible assets Other term assets Total assets Short-term debt Creditors Other current liabs Long-term debt/CBs Provisions/other LT liabs Minorities/other equity	1,300 1,136 1,223 1,337 11,971 1,281 3,174 21,422 2,514 740 1,705 3,514 223 7	2,768 1,036 1,321 1,412 11,831 1,193 4,462 24,022 3,165 789 2,046 4,509 266 66	1,247 1,475 1,858 14,009 1,136 4,462 27,136 3,625 887 2,046 5,163 266 66	1,356 1,550 1,858 15,069 1,082 4,462 26,982 2,634 932 2,046 3,753 266 66	1,461 1,640 1,858 16,036 1,030 4,462 28,215 2,081 986 2,046 2,964 266 66
Balance sheet still healthy	Cash & equivalents Debtors Inventories Other current assets Fixed assets Intangible assets Other term assets Total assets Short-term debt Creditors Other current liabs Long-term debt/CBs Provisions/other LT liabs Minorities/other equity Shareholder funds	1,300 1,136 1,223 1,337 11,971 1,281 3,174 21,422 2,514 740 1,705 3,514 223 7 12,718	2,768 1,036 1,321 1,412 11,831 1,193 4,462 24,022 3,165 789 2,046 4,509 266 66 13,181	1,247 1,475 1,858 14,009 1,136 4,462 27,136 3,625 887 2,046 5,163 266 66 15,083	1,356 1,550 1,858 15,069 1,082 4,462 26,982 2,634 932 2,046 3,753 266 66 17,285	1,461 1,640 1,858 16,036 1,030 4,462 28,215 2,081 986 2,046 2,964 266 66 19,806
Balance sheet still healthy	Cash & equivalents Debtors Inventories Other current assets Fixed assets Intangible assets Other term assets Total assets Short-term debt Creditors Other current liabs Long-term debt/CBs Provisions/other LT liabs Minorities/other equity Shareholder funds Total liabs & equity	1,300 1,136 1,223 1,337 11,971 1,281 3,174 21,422 2,514 740 1,705 3,514 223 7	2,768 1,036 1,321 1,412 11,831 1,193 4,462 24,022 3,165 789 2,046 4,509 266 66	1,247 1,475 1,858 14,009 1,136 4,462 27,136 3,625 887 2,046 5,163 266 66	1,356 1,550 1,858 15,069 1,082 4,462 26,982 2,634 932 2,046 3,753 266 66	1,461 1,640 1,858 16,036 1,030 4,462 28,215 2,081 986 2,046 2,964 266 66
	Cash & equivalents Debtors Inventories Other current assets Fixed assets Intangible assets Other term assets Total assets Short-term debt Creditors Other current liabs Long-term debt/CBs Provisions/other LT liabs Minorities/other equity Shareholder funds Total liabs & equity Ratio analysis	1,300 1,136 1,223 1,337 11,971 1,281 3,174 21,422 2,514 740 1,705 3,514 223 7 12,718 21,422	2,768 1,036 1,321 1,412 11,831 1,193 4,462 24,022 3,165 789 2,046 4,509 2,66 66 13,181 24,022	1,247 1,475 1,858 14,009 1,136 4,462 27,136 3,625 887 2,046 5,163 266 66 15,083 27,136	1,356 1,550 1,858 15,069 1,082 4,462 26,982 2,634 932 2,046 3,753 266 66 17,285 26,982	1,461 1,640 1,858 16,036 1,030 4,462 28,215 2,081 986 2,046 2,964 266 66 19,806 28,215
Balance sheet still healthy Decent ROE	Cash & equivalents Debtors Inventories Other current assets Fixed assets Intangible assets Other term assets Total assets Short-term debt Creditors Other current liabs Long-term debt/CBs Provisions/other LT liabs Minorities/other equity Shareholder funds Total liabs & equity Ratio analysis Revenue growth (% YoY)	1,300 1,136 1,223 1,337 11,971 1,281 3,174 21,422 2,514 740 1,705 3,514 223 7 12,718 21,422 5.5	2,768 1,036 1,321 1,412 11,831 1,193 4,462 24,022 3,165 789 2,046 4,509 2,66 66 13,181 24,022	1,247 1,475 1,858 14,009 1,136 4,462 27,136 3,625 887 2,046 5,163 266 66 15,083 27,136	1,356 1,550 1,858 15,069 1,082 4,462 26,982 2,634 932 2,046 3,753 266 66 17,285 26,982	1,461 1,640 1,858 16,036 1,030 4,462 28,215 2,081 986 2,046 2,964 266 66 19,806 28,215
	Cash & equivalents Debtors Inventories Other current assets Fixed assets Intangible assets Other term assets Total assets Short-term debt Creditors Other current liabs Long-term debt/CBs Provisions/other LT liabs Minorities/other equity Shareholder funds Total liabs & equity Ratio analysis Revenue growth (% YoY) Ebitda growth (% YoY)	1,300 1,136 1,223 1,337 11,971 1,281 3,174 21,422 2,514 740 1,705 3,514 223 7 12,718 21,422 5.5 33.0	2,768 1,036 1,321 1,412 11,831 1,193 4,462 24,022 3,165 789 2,046 4,509 2,66 66 13,181 24,022	1,247 1,475 1,858 14,009 1,136 4,462 27,136 3,625 887 2,046 5,163 266 66 15,083 27,136	1,356 1,550 1,858 15,069 1,082 4,462 26,982 2,634 932 2,046 3,753 266 66 17,285 26,982	1,461 1,640 1,858 16,036 1,030 4,462 28,215 2,081 986 2,046 2,964 266 66 19,806 28,215 7.7 11.9
	Cash & equivalents Debtors Inventories Other current assets Fixed assets Intangible assets Other term assets Total assets Short-term debt Creditors Other current liabs Long-term debt/CBs Provisions/other LT liabs Minorities/other equity Shareholder funds Total liabs & equity Ratio analysis Revenue growth (% YoY) Ebitda growth (% YoY)	1,300 1,136 1,223 1,337 11,971 1,281 3,174 21,422 2,514 740 1,705 3,514 223 7 12,718 21,422 5.5 33.0 20.2	2,768 1,036 1,321 1,412 11,831 1,193 4,462 24,022 3,165 789 2,046 4,509 2,66 66 13,181 24,022 12.1 58.4 28.5	1,247 1,475 1,858 14,009 1,136 4,462 27,136 3,625 887 2,046 5,163 266 66 15,083 27,136 14.8 15.7 28.8	1,356 1,550 1,858 15,069 1,082 4,462 26,982 2,634 932 2,046 3,753 266 66 17,285 26,982 26,982 8.8 8.8 18.6 31.4	1,461 1,640 1,858 16,036 1,030 4,462 28,215 2,081 986 2,046 2,964 266 66 19,806 28,215 7.7 11.9 32.6
	Cash & equivalents Debtors Inventories Other current assets Fixed assets Intangible assets Other term assets Total assets Short-term debt Creditors Other current liabs Long-term debt/CBs Provisions/other LT liabs Minorities/other equity Shareholder funds Total liabs & equity Ratio analysis Revenue growth (% YoY) Ebitda growth (% YoY) Ebitda margin (%)	1,300 1,136 1,223 1,337 11,971 1,281 3,174 21,422 2,514 740 1,705 3,514 223 7 12,718 21,422 5.5 33.0 20.2 18.4	2,768 1,036 1,321 1,412 11,831 1,193 4,462 24,022 3,165 789 2,046 4,509 2,66 66 13,181 24,022 12.1 58.4 28.5 25.0	1,247 1,475 1,858 14,009 1,136 4,462 27,136 3,625 887 2,046 5,163 266 66 15,083 27,136 27,136	1,356 1,550 1,858 15,069 1,082 4,462 26,982 2,634 932 2,046 3,753 266 66 17,285 26,982 8.8 18.6 31.4 26.6	1,461 1,640 1,858 16,036 1,030 4,462 28,215 2,081 986 2,046 2,964 266 66 19,806 28,215 7.7 11.9 32.6 28,2
	Cash & equivalents Debtors Inventories Other current assets Fixed assets Intangible assets Other term assets Total assets Short-term debt Creditors Other current liabs Long-term debt/CBs Provisions/other LT liabs Minorities/other equity Shareholder funds Total liabs & equity Ratio analysis Revenue growth (% YoY) Ebitda growth (% YoY) Ebitda margin (%) Net profit margin (%)	1,300 1,136 1,223 1,337 11,971 1,281 3,174 21,422 2,514 740 1,705 3,514 223 7 12,718 21,422 5.5 33.0 20.2 18.4 50.5	2,768 1,036 1,321 1,412 11,831 1,193 4,462 24,022 3,165 789 2,046 4,509 2,66 66 13,181 24,022 12,1 58,4 28,5 25,0 49,7	1,247 1,475 1,858 14,009 1,136 4,462 27,136 3,625 887 2,046 5,163 266 66 15,083 27,136 14.8 15.7 28.8 25.0 48.0	1,356 1,550 1,858 15,069 1,082 4,462 26,982 2,634 932 2,046 3,753 266 66 17,285 26,982 8.8 18.6 31.4 26.6 48.5	1,461 1,640 1,858 16,036 1,030 4,462 28,215 2,081 986 2,046 2,964 266 66 19,806 28,215 7.7 11.9 32.6 28,2 48.5
	Cash & equivalents Debtors Inventories Other current assets Fixed assets Intangible assets Other term assets Total assets Short-term debt Creditors Other current liabs Long-term debt/CBs Provisions/other LT liabs Minorities/other equity Shareholder funds Total liabs & equity Ratio analysis Revenue growth (% YoY) Ebitda growth (% YoY) Ebitda margin (%) Net profit margin (%) Dividend payout (%) Effective tax rate (%)	1,300 1,136 1,223 1,337 11,971 1,281 3,174 21,422 2,514 740 1,705 3,514 223 7 12,718 21,422 5.5 33.0 20.2 18.4 50.5 11.2	2,768 1,036 1,321 1,412 11,831 1,193 4,462 24,022 3,165 789 2,046 4,509 2,66 66 13,181 24,022 12,1 58,4 28,5 25,0 49,7 15,9	1,247 1,475 1,858 14,009 1,136 4,462 27,136 3,625 887 2,046 5,163 266 66 15,083 27,136 14.8 15.7 28.8 25.0 48.0 14.7	1,356 1,550 1,858 15,069 1,082 4,462 26,982 2,634 932 2,046 3,753 266 66 17,285 26,982 8.8 18.6 31.4 26.6 48.5 14.9	1,461 1,640 1,858 16,036 1,030 4,462 28,215 2,081 986 2,046 2,964 266 66 19,806 28,215 7.7 11.9 32.6 28,2 48.5 14.7
	Cash & equivalents Debtors Inventories Other current assets Fixed assets Intangible assets Other term assets Total assets Short-term debt Creditors Other current liabs Long-term debt/CBs Provisions/other LT liabs Minorities/other equity Shareholder funds Total liabs & equity Ratio analysis Revenue growth (% YoY) Ebitda growth (% YoY) Ebitda margin (%) Net profit margin (%) Dividend payout (%) Effective tax rate (%) Ebitda/net int exp (x)	1,300 1,136 1,223 1,337 11,971 1,281 3,174 21,422 2,514 740 1,705 3,514 223 7 12,718 21,422 5.5 33.0 20.2 18.4 50.5 11.2 46.1	2,768 1,036 1,321 1,412 11,831 1,193 4,462 24,022 3,165 789 2,046 4,509 2,66 66 13,181 24,022 12,1 58,4 28,5 25,0 49,7 15,9 47,7	1,247 1,475 1,858 14,009 1,136 4,462 27,136 3,625 887 2,046 5,163 266 66 15,083 27,136 14.8 15.7 28.8 25.0 48.0 14.7 69.1	1,356 1,550 1,858 15,069 1,082 4,462 26,982 2,634 932 2,046 3,753 266 66 17,285 26,982 8.8 18.6 31.4 26.6 48.5 14.9 67.4	1,461 1,640 1,858 16,036 1,030 4,462 28,215 2,081 986 2,046 2,964 266 66 19,806 28,215 7.7 11.9 32.6 28,2 48.5 14.7 115.6
	Cash & equivalents Debtors Inventories Other current assets Fixed assets Intangible assets Other term assets Total assets Short-term debt Creditors Other current liabs Long-term debt/CBs Provisions/other LT liabs Minorities/other equity Shareholder funds Total liabs & equity Ratio analysis Revenue growth (% YoY) Ebitda growth (% YoY) Ebitda margin (%) Net profit margin (%) Dividend payout (%) Effective tax rate (%) Ebitda/net int exp (x) Net debt/equity (%)	1,300 1,136 1,223 1,337 11,971 1,281 3,174 21,422 2,514 740 1,705 3,514 223 7 12,718 21,422 5.5 33.0 20.2 18.4 50.5 11.2 46.1 37.2	2,768 1,036 1,321 1,412 11,831 1,193 4,462 24,022 3,165 789 2,046 4,509 2,66 66 13,181 24,022 12.1 58.4 28.5 25.0 49.7 15.9 47.7 37.0	1,247 1,475 1,858 14,009 1,136 4,462 27,136 3,625 887 2,046 5,163 266 66 15,083 27,136 14.8 15.7 28.8 25.0 48.0 14.7 69.1 38.5	1,356 1,550 1,858 15,069 1,082 4,462 26,982 2,046 3,753 266 66 17,285 26,982 8.8 18.6 31.4 26.6 48.5 14.9 67.4 27.6	1,461 1,640 1,858 16,036 1,030 4,462 28,215 2,081 986 2,046 2,964 266 66 19,806 28,215 7,7 11.9 32.6 28,2 48.5 14.7 115.6 16.7
	Cash & equivalents Debtors Inventories Other current assets Fixed assets Intangible assets Other term assets Total assets Short-term debt Creditors Other current liabs Long-term debt/CBs Provisions/other LT liabs Minorities/other equity Shareholder funds Total liabs & equity Ratio analysis Revenue growth (% YoY) Ebitda growth (% YoY) Ebitda margin (%) Net profit margin (%) Dividend payout (%) Effective tax rate (%) Ebitda/net int exp (x) Net debt/equity (%) ROE (%)	1,300 1,136 1,223 1,337 11,971 1,281 3,174 21,422 2,514 740 1,705 3,514 223 7 12,718 21,422 5.5 33.0 20.2 18.4 50.5 11.2 46.1 37.2 16.9	2,768 1,036 1,321 1,412 11,831 1,193 4,462 24,022 3,165 789 2,046 4,509 2,66 66 13,181 24,022 12.1 58.4 28.5 25.0 49.7 15.9 47.7 37.0 24.8	1,247 1,475 1,858 14,009 1,136 4,462 27,136 3,625 887 2,046 5,163 266 66 15,083 27,136 14.8 15.7 28.8 25.0 48.0 14.7 69.1 38.5 26.1	1,356 1,550 1,858 15,069 1,082 4,462 26,982 2,634 932 2,046 3,753 266 66 17,285 26,982 8.8 18.6 31.4 26.6 48.5 14.9 67.4 27.6 26.3	1,461 1,640 1,858 16,036 1,030 4,462 28,215 2,081 986 2,046 2,964 266 66 19,806 28,215 7,7 11.9 32.6 28,2 48.5 14.7 115.6 16.7 26.3
	Cash & equivalents Debtors Inventories Other current assets Fixed assets Intangible assets Other term assets Total assets Short-term debt Creditors Other current liabs Long-term debt/CBs Provisions/other LT liabs Minorities/other equity Shareholder funds Total liabs & equity Ratio analysis Revenue growth (% YoY) Ebitda growth (% YoY) Ebitda margin (%) Net profit margin (%) Dividend payout (%) Effective tax rate (%) Ebitda/net int exp (x) Net debt/equity (%) ROE (%) ROIC (%)	1,300 1,136 1,223 1,337 11,971 1,281 3,174 21,422 2,514 740 1,705 3,514 223 7 12,718 21,422 5.5 33.0 20.2 18.4 50.5 11.2 46.1 37.2 16.9 8.7	2,768 1,036 1,321 1,412 11,831 1,193 4,462 24,022 3,165 789 2,046 4,509 2,66 66 13,181 24,022 12.1 58.4 28.5 25.0 49.7 15.9 47.7 37.0 24.8 15.7	1,247 1,475 1,858 14,009 1,136 4,462 27,136 3,625 887 2,046 5,163 266 66 15,083 27,136 14.8 15.7 28.8 25.0 48.0 14.7 69.1 38.5 26.1 17.3	1,356 1,550 1,858 15,069 1,082 4,462 26,982 2,634 932 2,046 3,753 266 66 17,285 26,982 8.8 18.6 31.4 26.6 48.5 14.9 67.4 27.6 26.3 18.5	1,461 1,640 1,858 16,036 1,030 4,462 28,215 2,081 986 2,046 2,964 266 66 19,806 28,215 7,7 11.9 32.6 28,2 48.5 14.7 115.6 16.7 26.3 19,7
	Cash & equivalents Debtors Inventories Other current assets Fixed assets Intangible assets Other term assets Total assets Short-term debt Creditors Other current liabs Long-term debt/CBs Provisions/other LT liabs Minorities/other equity Shareholder funds Total liabs & equity Ratio analysis Revenue growth (% YoY) Ebitda growth (% YoY) Ebitda margin (%) Net profit margin (%) Dividend payout (%) Effective tax rate (%) Ebitda/net int exp (x) Net debt/equity (%) ROE (%) ROIC (%) EVA®/IC (%)	1,300 1,136 1,223 1,337 11,971 1,281 3,174 21,422 2,514 740 1,705 3,514 223 7 12,718 21,422 5.5 33.0 20.2 18.4 50.5 11.2 46.1 37.2 16.9	2,768 1,036 1,321 1,412 11,831 1,193 4,462 24,022 3,165 789 2,046 4,509 2,66 66 13,181 24,022 12.1 58.4 28.5 25.0 49.7 15.9 47.7 37.0 24.8	1,247 1,475 1,858 14,009 1,136 4,462 27,136 3,625 887 2,046 5,163 266 66 15,083 27,136 14.8 15.7 28.8 25.0 48.0 14.7 69.1 38.5 26.1	1,356 1,550 1,858 15,069 1,082 4,462 26,982 2,634 932 2,046 3,753 266 66 17,285 26,982 8.8 18.6 31.4 26.6 48.5 14.9 67.4 27.6 26.3	1,461 1,640 1,858 16,036 1,030 4,462 28,215 2,081 986 2,046 2,964 266 66 19,806 28,215 7,7 11.9 32.6 28,2 48.5 14.7 115.6 16.7 26.3 19,7
	Cash & equivalents Debtors Inventories Other current assets Fixed assets Intangible assets Other term assets Total assets Short-term debt Creditors Other current liabs Long-term debt/CBs Provisions/other LT liabs Minorities/other equity Shareholder funds Total liabs & equity Ratio analysis Revenue growth (% YoY) Ebitda growth (% YoY) Ebitda margin (%) Net profit margin (%) Dividend payout (%) Effective tax rate (%) Ebitda/net int exp (x) Net debt/equity (%) ROE (%) ROIC (%)	1,300 1,136 1,223 1,337 11,971 1,281 3,174 21,422 2,514 740 1,705 3,514 223 7 12,718 21,422 5.5 33.0 20.2 18.4 50.5 11.2 46.1 37.2 16.9 8.7	2,768 1,036 1,321 1,412 11,831 1,193 4,462 24,022 3,165 789 2,046 4,509 2,66 66 13,181 24,022 12.1 58.4 28.5 25.0 49.7 15.9 47.7 37.0 24.8 15.7	1,247 1,475 1,858 14,009 1,136 4,462 27,136 3,625 887 2,046 5,163 266 66 15,083 27,136 14.8 15.7 28.8 25.0 48.0 14.7 69.1 38.5 26.1 17.3	1,356 1,550 1,858 15,069 1,082 4,462 26,982 2,634 932 2,046 3,753 266 66 17,285 26,982 8.8 18.6 31.4 26.6 48.5 14.9 67.4 27.6 26.3 18.5	1,461 1,640 1,858 16,036 1,030 4,462 28,215 2,081 986 2,046 2,964 266 66 19,806 28,215 7,7 11.9 32.6 28,2 48.5 14.7 115.6 16.7 26.3





Research subscriptions

To change your report distribution requirements, please contact your CLSA sales representative or email us at cib@clsa.com. You can also fine-tune your Research Alert email preferences at https://www.clsa.com/member/tools/email_alert/.

Companies mentioned

Xinyi Glass (868 HK - HK\$8.90 - BUY) Xinyi Solar (968 HK - HK\$2.73 - BUY)

Analyst certification

The analyst(s) of this report hereby certify that the views expressed in this research report accurately reflect my/our own personal views about the securities and/or the issuers and that no part of my/our compensation was, is, or will be directly or indirectly related to the specific recommendation or views contained in this research report.

Important disclosures





Source: CLSA; * Adjusted for corporate action



Recommendation history of Xinyi Solar Holdings Ltd 968 HK

Date	Rec	Target	Date	Rec	Target
31 Oct 2017	BUY	3.30	05 Feb 2016	BUY	4.07*
01 Aug 2017	BUY	3.10	12 Jan 2016	BUY	4.57*
17 Jul 2017	BUY	3.00	19 Nov 2015	BUY	4.67*
22 Apr 2017	BUY	2.98*	02 Nov 2015	BUY	4.57*
28 Feb 2017	BUY	3.38*	19 Oct 2015	BUY	4.67*
14 Dec 2016	BUY	3.48*	12 Jun 2015	BUY	4.55*
18 Oct 2016	BUY	3.87*	27 May 2015	BUY	4.07*
15 Jun 2016	BUY	4.17*	24 Apr 2015	BUY	3.56*
16 Mar 2016	BUY	3.97*	12 Mar 2015	BUY	3.11*

Source: CLSA; * Adjusted for corporate action

The policy of CLSA (which for the purpose of this disclosure includes its subsidiary CLSA B.V.) and CL Securities Taiwan Co., Ltd. ("CLST") is to only publish research that is impartial, independent, clear, fair, and not misleading. Analysts may not receive compensation from the companies they cover. Regulations or market practice of some jurisdictions/markets prescribe certain disclosures to be made for certain actual, potential or perceived conflicts of interests relating to a research report as below. This research disclosure should be read in conjunction with the research disclaimer as set out at www.clsa.com/disclaimer.html and the applicable regulation of the concerned market where the analyst is stationed and hence subject to. This research disclosure is for your information only and does not constitute any recommendation, representation or warranty. Absence of a discloseable position should not be taken as endorsement on the validity or quality of the research report or recommendation.

To maintain the independence and integrity of CLSA's research, our Corporate Finance, Sales Trading and Research business lines are distinct from one another. This means that CLSA's Research department is not part of and does not report to CLSA Corporate Finance (or "investment banking") department or CLSA's Sales and

Trading business. Accordingly, neither the Corporate Finance nor the Sales and Trading department supervises or controls the activities of CLSA's research analysts. CLSA's research analysts report to the management of the Research department, who in turn report to CLSA's senior management.

CLSA has put in place a number of internal controls designed to manage conflicts of interest that may arise as a result of CLSA engaging in Corporate Finance, Sales and Trading and Research activities. Some examples of these controls include: the use of information barriers and other information controls designed to ensure that confidential information is only shared on a "need to know" basis and in compliance with CLSA's Chinese Wall policies and procedures; measures designed to ensure that interactions that may occur among CLSA's Research personnel, Corporate Finance and Sales and Trading personnel, CLSA's financial product issuers and CLSA's research analysts do not compromise the integrity and independence of CLSA's research.

Neither analysts nor their household members/associates/may have a financial interest in, or be an officer, director or advisory board member of companies covered by the analyst unless disclosed



herein. In circumstances where an analyst has a preexisting holding in any securities under coverage, those holdings are grandfathered and the analyst is prohibited from trading such securities.

Unless specified otherwise, CLSA/CLST did not receive investment banking/non-investment banking income from, and did not manage/co-manage a public offering for, the listed company during the past 12 months, and it does not expect to receive investment banking compensation from the listed company within the coming three months. Unless mentioned otherwise, CLSA/CLST does not own a material discloseable position, and does not make a market, in the securities.

As analyst(s) of this report, I/we hereby certify that the views expressed in this research report accurately reflect my/our own personal views about the securities and/or the issuers and that no part of my/our compensation was, is, or will be directly or indirectly related to the specific recommendation or views contained in this report or to any investment banking relationship with the subject company covered in this report (for the past one year) or otherwise any other relationship with such company which leads to receipt of fees from the company except in ordinary course of business of the company. The analyst/s also state/s and confirm/s that he/she/they has/have not been placed under any undue influence, intervention or pressure by any person/s in compiling this research report. In addition, the analysts included herein attest that they were not in possession of any material, nonpublic information regarding the subject company at the time of publication of the report. Save from the disclosure below (if any), the analyst(s) is/are not aware of any material conflict of interest.

Key to CLSA/CLST investment rankings: BUY: Total stock return (including dividends) expected to exceed 20%; O-PF: Total expected return below 20% but exceeding market return; U-PF: Total expected return positive but below market return; SELL: Total return expected to be negative. For relative performance, we benchmark the 12-month total forecast return (including dividends) for the stock against the 12-month forecast return (including dividends) for the market on which the stock trades.

We define as "Double Baggers" stocks we expect to yield 100% or more (including dividends) within three years at the time the stocks are introduced to our "Double Bagger" list. "High Conviction" Ideas are not necessarily stocks with the most upside/downside, but those where the Research Head/Strategist believes there is the highest likelihood of positive/negative returns. The list for each market is monitored weekly. Overall rating distribution for CLSA/CLST only Universe:

Overall rating distribution: BUY / Outperform - CLSA: 64.86%; CLST only: 59.09%, Underperform / SELL - CLSA: 35.14%; CLST only: 40.91%, Restricted - CLSA: 0.00%; CLST only: 0.00%. Data as of 30 September 2017.

Investment banking clients as a % of rating category: BUY / Outperform - CLSA: 4.31%; CLST only: 0.00%, Underperform / SELL - CLSA: 3.33%; CLST only: 0.00%, Restricted - CLSA: 0.00%; CLST only: 0.00%. Data for 12-month period ending 30 September 2017.

There are no numbers for Hold/Neutral as CLSA/CLST do not have such investment rankings.

For a history of the recommendations and price targets for companies mentioned in this report, as well as company specific disclosures, please write to: (a) CLSA, Group Compliance, 18/F, One Pacific Place, 88 Queensway, Hong Kong and/or; (b) CLST Compliance (27/F, 95, Section 2 Dun Hua South Road, Taipei 10682, Taiwan, telephone (886) 2 2326 8188). © 2017 CLSA Limited and/or CLST.

@ 2017 CLSA Limited, and/or CL Securities Taiwan Co., Ltd. ("CLST")

This publication/communication is subject to and incorporates the terms and conditions of use set out on www.clsa.com the website (www.clsa.com/disclaimer.html.). Neither the publication/communication nor any portion hereof may be reprinted, sold, resold, copied, reproduced, distributed, redistributed, published, republished, displayed, posted or transmitted in any form or media or by any means without the written consent of CLSA group of companies ("CLSA") and/or CLST.

CLSA and/or CLST have produced this publication/communication for private circulation to professional, institutional and/or wholesale clients only. This publication/communication may not be distributed or redistributed to retail investors. The information, opinions and estimates herein are not directed at, or intended for distribution to or use by, any person or entity in any jurisdiction where doing so would be contrary to law or regulation or which would subject CLSA and/or CLST to any additional registration or licensing requirement within such jurisdiction. The information and statistical data herein have been obtained from sources we believe to be reliable. Such information has not been independently verified and we make no representation or warranty as to its accuracy, completeness or correctness. Any opinions or estimates herein reflect the judgment of CLSA and/or

CLST at the date of this publication/communication and are subject to change at any time without notice. Where any part of the information, opinions or estimates contained herein reflects the views and opinions of a sales person or a non-analyst, such views and opinions may not correspond to the published view of CLSA and/or CLST. This is not a solicitation or any offer to buy or sell. This publication/communication is for information purposes only and does not constitute anv recommendation, representation, warranty or guarantee of performance. Any price target given in the report may be projected from one or more valuation models and hence any price target may be subject to the inherent risk of the selected model as well as other external risk factors. This is not intended to provide professional, investment or any other type of advice or recommendation and does not take into account the particular investment objectives, financial situation or needs of individual recipients. Before acting on any information in this publication/communication, VOU should consider whether it is suitable for your particular circumstances and, if appropriate, seek professional advice, including tax advice. CLSA and/or CLST do/does not accept any responsibility and cannot be held liable for any person's use of or reliance on the information and opinions contained herein. To the extent permitted by applicable securities laws and regulations, CLSA and/or CLST accept(s) no liability whatsoever for any direct or consequential loss arising from the use of this publication/communication or its contents. Where the publication does not contain ratings, the material should not be construed as research but is offered as factual commentary. It is not intended to, nor should it be used to form an investment opinion about the non-rated companies.

Subject to any applicable laws and regulations at any given time, CLSA, CLST, their respective affiliates or companies or individuals connected with CLSA /CLST may have used the information contained herein before publication and may have positions in, may from time to time purchase or sell or have a material interest in any of the securities mentioned or related securities, or may currently or in future have or have had a business or financial relationship with, or may provide or have provided investment banking, capital markets and/or other services to, the entities referred to herein, their advisors and/or any other connected parties. As a result, investors should be aware that CLSA, CLST and/or their respective affiliates or companies or such individuals may have one or more conflicts of interest. Regulations or market practice of some jurisdictions/markets prescribe certain disclosures to be made for certain actual, potential or perceived conflicts of interests relating to research reports. Details of the discloseable interest can

be found in certain reports as required by the relevant rules and regulation and the full details are available at http://www.clsa.com/member/research_disclosures/. Disclosures therein include the position of CLSA and CLST only. Unless specified otherwise, CLSA did not receive any compensation or other benefits from the subject company covered in this publication/communication, or from any third party in connection with this report. If investors have any difficulty accessing this website, please contact webadmin@clsa.com on +852 2600 8111. If you require disclosure information on previous dates, please contact compliance_hk@clsa.com.

This publication/communication is distributed for and on behalf of CLSA Limited (for research compiled by non-US and non-Taiwan analyst(s)), and/or CLST (for research compiled by Taiwan analyst(s)) in Australia by CLSA Australia Pty Ltd; in Hong Kong by CLSA Limited; in India by CLSA India Private Limited, (Address: 8/F, Dalamal House, Nariman Point, Mumbai 400021. Tel No: +91-22-66505050. Fax No: +91-22-22840271; CIN: U67120MH1994PLC083118; SEBI Registration No: INZ000001735; in Indonesia by PT CLSA Sekuritas Indonesia; in Japan by CLSA Securities Japan Co., Ltd; in Korea by CLSA Securities Korea Ltd; in Malaysia by CLSA Securities Malaysia Sdn Bhd; in the Philippines by CLSA Philippines Inc (a member of Philippine Stock Exchange and Securities Investors Protection Fund); in Thailand by CLSA Securities (Thailand) Limited; in Taiwan by CLST and in the United Kingdom by CLSA (UK).

India: CLSA India Private Limited, incorporated in November 1994 provides equity brokerage services (SEBI Registration No: INZ000001735), research services (SEBI Registration No: INH000001113) and merchant banking Registration services (SEBI No.INM000010619) to global institutional investors, pension funds and corporates. CLSA and its associates may have debt holdings in the subject company. Further, CLSA and its associates, in the past 12 months, may have received compensation for non-investment banking securities and/or non-securities related services from the subject company. For further details of "associates" of CLSA India please contact Compliance-India@clsa.com.

United States of America: Where any section is compiled by non-US analyst(s), it is distributed into the United States by CLSA solely to persons who qualify as "Major US Institutional Investors" as defined in Rule 15a-6 under the Securities and Exchange Act of 1934 and who deal with CLSA Americas. However, the delivery of this research report to any person in the United States shall not be deemed a recommendation to effect any transactions in the securities discussed herein or an endorsement of any opinion expressed herein. Any recipient of this research in the United States wishing to effect a transaction in any security mentioned herein should do so by contacting CLSA Americas.

Canada: The delivery of this research report to any person in Canada shall not be deemed a recommendation to effect any transactions in the securities discussed herein or an endorsement of any opinion expressed herein. Any recipient of this research in Canada wishing to effect a transaction in any security mentioned herein should do so by contacting CLSA Americas.

United Kingdom: In the United Kingdom, this research is a marketing communication. It has not been prepared in accordance with the legal requirements designed to promote the independence of investment research, and is not subject to any prohibition on dealing ahead of the dissemination of investment research. The research is disseminated in the EU by CLSA (UK), which is authorised and regulated by the Financial Conduct Authority. This document is directed at persons having professional experience in matters relating to investments as defined in Article 19 of the FSMA 2000 (Financial Promotion) Order 2005. Any investment activity to which it relates is only available to such persons. If you do not have professional experience in matters relating to investments you should not rely on this document. Where the research material is compiled by the UK analyst(s), it is produced and disseminated by CLSA (UK). For the purposes of the Financial Conduct Rules this research is prepared and intended as substantive research material.

Singapore: In Singapore, research is issued and/or distributed by CLSA Singapore Pte Ltd (Company Registration No.: 198703750W), a Capital Markets Services licence holder to deal in securities and an exempt financial adviser, solely to persons who qualify as an institutional investor, accredited investor or expert investor, as defined in s.4A(1) of the Securities and Futures Act. Pursuant to Paragraphs 33, 34, 35 and 36 of the Financial Advisers (Amendment) Regulations 2005 of

the Financial Advisers Act (Cap 110) with regards to an institutional investor, accredited investor, expert investor or Overseas Investor, sections 25, 27 and 36 of the Financial Adviser Act (Cap 110) shall not apply to CLSA Singapore Pte Ltd. Please contact CLSA Singapore Pte Ltd (telephone No.: +65 6416 7888) in connection with queries on the report. MCI (P) 033/11/2016

The analysts/contributors to this publication/communication may be employed by any relevant CLSA entity, CLST or a subsidiary of CITIC Securities Company Limited which is different from the entity that distributes the publication/communication in the respective jurisdictions.

MSCI-sourced information is the exclusive property of Morgan Stanley Capital International Inc (MSCI). Without prior written permission of MSCI, this information and any other MSCI intellectual property may not be reproduced, redisseminated or used to create any financial products, including any indices. This information is provided on an "as is" basis. The user assumes the entire risk of any use made of this information. MSCI, its affiliates and any third party involved in, or related to, computing or compiling the information hereby expressly disclaim all warranties of originality, accuracy, completeness, merchantability or fitness for a particular purpose with respect to any of this information. Without limiting any of the foregoing, in no event shall MSCI, any of its affiliates or any third party involved in, or related to, computing or compiling the information have any liability for any damages of any kind. MSCI, Morgan Stanley Capital International and the MSCI indexes are service marks of MSCI and its affiliates. The Global Industry Classification Standard (GICS) was developed by and is the exclusive property of MSCI and Standard & Poor's. GICS is a service mark of MSCI and S&P and has been licensed for use by CLSA.

 $EVA \circledast$ is a registered trademark of Stern, Stewart & Co. "CL" in charts and tables stands for CLSA and "CT" stands for CLST estimates unless otherwise noted in the source.