

Sunny Optical Technology

HQ visit takeaway: positioning as an optical expert for LT value growth

We visited Sunny Optical's Yuyao headquarters on 15-16 June to learn more about the latest industry trends, and visited the auto lens/dual camera module manufacturing facilities. We are impressed by Sunny's strong execution and believe its increasing focus on optical solutions could be highly differentiating. Management maintained its 2015 guidance, and we see potential upside from our 2016E EPS forecast from greater shipments of dual-camera smartphone models and other non-smartphone lenses. Sunny remains our preferred HK-listed tech hardware name.

Long-term vision as an optical solutions expert: Sunny believes the upcoming trend in the camera industry lies in software and hardware integration as well as optical services for new camera technologies (active alignment, dual camera, array camera) and applications (augmented reality, virtual reality, 3D imaging). Sunny aims to provide onestop solution to all types of optical applications and believes it is well-positioned to benefit from upcoming IoT, VR (virtual reality) and AR (augment reality) applications.

Dual camera solutions to ramp up in 4Q15: Sunny expects its shipments for dual-camera products to see more meaningful growth towards 4Q15 and highlighted that dual-cam solutions could bring new analytical capabilities, such as distance measurement, composition analysis (with UV cameras) and heat analysis (with infra-red cameras) for active driving safety, leading to the need for more sophisticated algorithm knowledge to manage and optimize camera performance. Sunny has recently established a new R&D center in Hangzhou focusing on optical computing.

2015 guidance maintained: Sunny maintained its 2015 guidance, with 20-30% y/y volume growth for handset camera module, 35-40% y/y volume growth for auto lens and 50% y/y for handset lens. With higher auto & handset lens mix, Sunny expects GP margin to improve in 2H15 and believes ASP has the potential to improve with pixel migration. According to Sunny, 10MP+ products should contribute 10-15% of its handset lens (vs 2% in 2014) and 20-25% of its camera module units (vs 16% in 2014).

2382.HK: SemiAnnual and Annual EPS CNY

	2014				2016			Chang	ge y/y
FY Dec	Actual	Old	New	Cons	Old	New	Cons	2015	2016
1H	0.24A	0.36E	0.36E	N/A	N/A	N/A	N/A	50%	N/A
2H	0.29A	0.42E	0.42E	N/A	N/A	N/A	N/A	45%	N/A
Year	0.53A	0.77E	0.77E	0.74E	1.07E	1.07E	0.91E	45%	39%
P/E	24.2		16.6			12.1			

Source: Barclays Research. Consensus numbers are from Thomson Reuters

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Equity Research

Technology | Asia ex-Japan Wireless Equipment & Products 18 June 2015

Stock Rating (OVERWEIGHT Unchanged
Industry View	POSITIVE Unchanged
Price Target	HKD 21.00 Unchanged
Price (17-Jun-2015) Potential Upside/Downside	HKD 16.06 +31%
Tickers	2382 HK / 2382.HK
Market Cap (USD mn)	2273
Shares Outstanding (mn)	1097.00
Free Float (%)	61.58
52 Wk Avg Daily Volume (mn)	6.7
52 Wk Avg Daily Value (USD m	n) 11.19
Dividend Yield (%)	1.2
Return on Equity TTM (%)	18.57
Current BVPS (CNY)	2.96
Source: Thomson Reuters	

Price Performance	Exchange-HKG
52 Week range	HKD 19.94-9.32
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Link to Barclays Live for interactive charting

Asia ex-Japan Wireless Equipment & Products

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Stock Rating: OVERWEIGHT

Sunny Optical Technology (2382.HK)

Price (17-Jun-2015)	HKD 16.06
Price Target	HKD 21.00

Income statement (CNYmn)	2014A	2015E	2016E	201/E	CAGR
Revenue	8,426	11,631	14,798	16,894	26.1%
EBITDA	792	1,106	1,476	1,719	29.5%
EBIT	577	859	1,192	1,392	34.1%
Pre-tax income	634	928	1,272	1,487	32.9%
Net income	566	822	1,133	1,307	32.2%
EPS (reported) (CNY)	0.53	0.77	1.07	1.23	32.2%
Diluted shares (mn)	1,062.4	1,062.4	1,062.4	1,062.4	0.0%
DPS (CNY)	0.15	0.22	0.31	0.36	32.2%

Why Overweight? We view Sunny Optical as the leader in camera lens migration among China smartphones in 2015-16, driven by robust unit growth and ASP appreciation into high-end models. In addition, we believe Sunny's strong position in the vehicle lens segment, on multi-year growth from automotive camera applications, could drive a rerating of the stock.

Margin and return data					Average
Gross margin (%)	15.3	15.9	16.5	16.6	16.1
EBITDA margin (%)	9.4	9.5	10.0	10.2	9.8
EBIT margin (%)	6.8	7.4	8.1	8.2	7.6
Pre-tax margin (%)	7.5	8.0	8.6	8.8	8.2
Net margin (%)	6.7	7.1	7.7	7.7	7.3
ROIC (%)	13.4	16.1	18.5	18.1	16.5
ROA (%)	11.0	12.9	14.3	13.8	13.0
ROE (%)	18.5	23.2	26.7	25.6	23.5

Upside case HKD 23.00

If China smartphone units grow faster than we expect and Sunny increases its GPM/OPM, despite price competition for handset camera modules, there could be 10% upside to EPS in 2015-16. Applying a P/E of 18x 2015-16E EPS, the share price could rise to HK\$23.00.

Balance sheet and cash flow (CNYmn) CAGR 15.0% Tangible fixed assets 1,035 1,190 1,369 1,574 Intangible fixed assets 0 0 0 0 0.0%

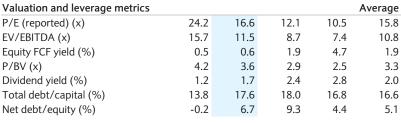
Downside case HKD 13.00

Greater margin contraction, inventory adjustments from China smartphone clients and slower penetration of 8MP/13MP camera lens to Samsung coud lead to worse-than-expected EPS in 2015-16. Applying a P/E of 15x to lower 2015-16E EPS, the share price could decline to HK\$13.00.

529 563 588 18.5% Cash and equivalents 879 Total assets 5,594 7,120 8,760 10,219 22.2% Short and long-term debt 522 822 1,022 1,122 29.1% Net debt/(funds) -7 258 433 242 N/A Other long-term liabilities 0.0% 46 46 46 46 **Total liabilities** 2.343 3.286 4.121 4.653 25.7% Shareholders' equity 3,251 3,834 4,639 5,566 19.6% Change in working capital -250 -581 -687 -449 N/A 530 Cash flow from operations 486 726 1,174 30.4% Capital expenditure -465 -402 -463 -532 N/A Free cash flow 64 83 263 643 115.3%

Upside/Downside scenarios





Selected operating metrics					Average
Inventory turnover days	43	40	41	43	42
Account receivable days	78	87	88	92	86
Account payable days	77	77	80	84	79
Cash conversion cycle (days)	43	49	49	51	48

Source: Company data, Barclays Research

Note: FY End Dec

FIGURE 1
Sunny Optical – statistical abstract

Year to	Net profit	EPS	EPS	P/E	P/B	ROE	BPS	DPS	Cons.EPS	
31-Dec	(RMBmn)	(RMB)	y/y (%)	(x)	(x)	(%)	(RMB)	(RMB)	(RMB)	% diff
2013A	440	0.41	15%	30.8	4.7	18.3	2.7	0.16		
2014A	566	0.53	29%	23.9	4.2	18.5	3.1	0.19		
2015E	822	0.77	45%	16.4	3.5	23.2	3.6	0.28	0.78	-1%
2016E	1,133	1.07	38%	11.9	2.9	26.7	4.4	0.39	0.98	9%
2017E	1,307	1.23	15%	10.3	2.4	25.6	5.2	0.45	1.16	6%

Source: Company data, Bloomberg consensus estimates, Barclays Research estimates

Key highlights from Sunny Optical visit

Operational update:

- Guidance maintained: Sunny maintained its 2015 guidance, with 20-30% y/y volume growth for the handset camera module, 35-40% y/y volume growth for auto lens and 50% y/y for handset lens. Helped by a higher auto and handset lens mix, Sunny management expects GP margin to improve in 2H15 and believes that ASP has the potential to improve.
- Capex and capacity update: For the camera module, Sunny's primary capex spending
 focused on improving efficiency. For camera lens, the RMB100mn capacity expansion
 plan has finished, leading to the monthly shipment capacity increasing from 22-23mn to
 25mn units. For auto lens, the expansion plan has finished, leading to the latest monthly
 shipment capacity increasing from 1.3mn to 1.6mn units.
- Camera pixel migration: Sunny expects camera pixel migration to continue and will continue to focus on high-end products. For handset lens sets, Sunny expects 10MP or above products to contribute 10-15% of its total shipment, up from 2% in 2014. For handset camera modules, the mix for 10MP or above should contribute 20-25% of total units, up from 16% in 2014.
- Cited interests in M&A: While Sunny cited interest in M&A, they highlighted that any
 potential M&A should be in the optical industry and should have IP patent allowed for
 Sunny's use. Management mentioned they had already invested in a number of smallscale companies in the industry.

Management discussion on camera technology trends:

- Dual camera to present value upgrade opportunity: Sunny highlighted that the dual
 camera trend was not just a quantity but also a major quality upgrade for the camera
 industry. With the help of an additional camera, dual-cam solutions could bring new
 analytical capabilities, such as distance measurement, composition analysis (with
 additional UV camera) and heat analysis for active driving safety. Based on customer
 planning and feedback, Sunny expects that its shipments for dual-camera products are
 likely to see more meaningful growth towards 4Q15.
- Optical solutions to become smarter: Sunny believes the upcoming trend in the camera industry lies in the software and hardware integration as well as optical services, as new camera technologies (active alignment, dual camera, array camera) and applications (augmented reality, virtual reality, 3D imaging) require much more sophisticated algorithm know-how in order to manage and optimize the performance multiple cameras. As a result, Sunny has recently established a new R&D center in Hangzhou focusing on optical computing areas. According to Sunny, the major area of its software focuses on algorithm on managing multiple cameras.

• Diversified applications: Sunny has positioned itself as an "optical expert" and aims to provide a one-stop solution to all types of optical applications. Apart from handset and automotive cameras, Sunny also highlighted its exposure in surveillance, sports cameras, industrial instrument, iris identification technology, 3D scanning machines, IoT (Internet of Things) as well as virtual reality and augmented reality technologies.

Valuation

Our 12-month price target of HK\$21.00 is based on a blended target P/E multiple of 18x applied to our 2015-16E average EPS estimate of HK\$1.16 (or RMB0.92).

FIGURE 2
Sunny Optical – blended P/E

	2015-16E P/E multiple (x)	Profit contribution
Smartphone camera module	14	60%
Vehicle lenses	30	15%
Handset lens/others	20	25%
Sum of the parts	18.0	

Source: Barclays Research estimates

- We set our target P/E on Sunny's handset camera module business at 14x. This is due
 to the greater growth outlook on high-end smartphones adopting the dual-camera
 design we think Sunny will lead local peers in order wins.
- We assign a 30x P/E for the vehicle lens business (unchanged), reflecting a higher sales growth rate (we forecast a CAGR of 35-40% in the next five years) and Sunny's market leadership in this area.
- We assign 20x P/E for its handset camera lens business. This is due to Sunny's betterthan-expected execution on Samsung orders and potential order wins on 8MP/13MP mainstream models, leading to upside on margins.

Sunny's forward P/E has averaged 12x over the past three years (since China smartphone volumes took off in 2011), with +1SD at 15x. Our target multiple of 18x represents a premium to its average since 2011, as we believe our price target should reflect the company's growth outlook both in terms of secular earnings for the next 12 months and new growth drivers from non-smartphone (especially vehicle lens) applications. Our price target for Sunny also implies a P/B multiple for 2015E of 4.6x, based on our 2015 ROE estimate of 23%.

FIGURE 3
Sunny Optical – rolling 12M forward P/E (x)



Source: Bloomberg, Barclays Research estimates

FIGURE 4
Sunny Optical – rolling 12M forward P/B (x)



Source: Bloomberg, Barclays Research estimates

Key risks

We believe the key downside risks to our price target are as follows:

- Weaker demand for China smartphones, despite 4G ramps in China and overseas expansion from China brands. This would likely be due to a potential inventory correction, and market share losses for Sunny's China smartphone clients that compete with Apple and Samsung in the high-end market.
- Greater margin contraction in the camera module business than we already expect, due to more severe pricing pressure on legacy 8MP/13MP models from Sunny's major clients, slower mega-pixel migration and rising industry competition.
- Lower-than-expected handset camera lens orders from Samsung, if most of Samsung's lens manufacturing remains in-house.
- Slower-than-expected progress of Google's Tango project, which we regard as a potential re-rating catalyst for Sunny in 2015-16.

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FIGURE 5
Sunny Optical – semi-annual income statement (1H13-2H16E)

(Rmb mn)	1H13	2H13	1H14	2H14	1H15E	2H15E	1H16E	2H16E	2013	2014	2015E	2016E	2017E
Sales	2,786	3,027	3,836	4,590	5,238	6,393	6,492	8,306	5,813	8,426	11,631	14,798	16,894
COGS	(2,345)	(2,500)	(3,275)	(3,863)	(4,410)	(5,372)	(5,412)	(6,941)	(4,846)	(7,137)	(9,782)	(12,353)	(14,095)
Gross profit	440	527	562	728	828	1,021	1,080	1,365	967	1,289	1,849	2,445	2,799
Op expenses	(224)	(281)	(293)	(420)	(416)	(573)	(526)	(727)	(505)	(712)	(990)	(1,253)	(1,407)
Op income	216	246	269	308	411	447	554	638	462	577	859	1,192	1,392
Int&other inc/(exp)	19	23	32	25	33	36	38	42	43	57	69	79	94
Pretax income	235	269	301	333	444	484	592	680	504	634	928	1,272	1,487
Taxes or credits	(41)	(23)	(47)	(26)	(67)	(44)	(89)	(54)	(64)	(73)	(110)	(143)	(184)
Minority	2	(3)	3	1	3	1	3	1	(1)	4	4	4	4
Net income	197	243	257	309	381	441	506	627	440	566	822	1,133	1,307
EPS in Rmb cents	0.19	0.23	0.24	0.29	0.36	0.42	0.48	0.59	0.41	0.53	0.77	1.07	1.23
Shares (mn)	1,062	1,062	1,062	1,062	1,062	1,062	1,062	1,062	1,062	1,062	1,062	1,062	1,062
Margin analysis:													
Gross margin	15.8%	17.4%	14.6%	15.9%	15.8%	16.0%	16.6%	16.4%	16.6%	15.3%	15.9%	16.5%	
Op margin	7.8%	8.1%	7.0%	6.7%	7.9%	7.0%	8.5%	7.7%	7.9%	6.8%	7.4%	8.1%	
Pre-tax margin	8.5%	8.9%	7.8%	7.3%	8.5%	7.6%	9.1%	8.2%	8.7%	7.5%	8.0%	8.6%	
Net margin	7.1%	8.0%	6.7%	6.7%	7.3%	6.9%	7.8%	7.5%	7.6%	6.7%	7.1%	7.7%	
y/y (%)													
Sales	57.4%	36.7%	37.7%	51.6%	36.5%	39.3%	23.9%	29.9%	45.9%	45.0%	38.0%	27.2%	
Gross profit	29.6%	31.3%	27.5%	38.2%	47.4%	40.2%	30.4%	33.7%	30.5%	33.3%	43.4%	32.3%	
Op income	30.8%	24.1%	24.5%	25.3%	53.1%	45.1%	34.6%	42.7%	27.1%	24.9%	48.8%	38.8%	
Net income	25.7%	27.9%	30.5%	27.2%	48.2%	43.0%	32.9%	42.0%	26.9%	28.7%	45.4%	37.8%	
h/h (%)													
Sales	25.8%	8.7%	26.7%	19.7%	14.1%	22.0%	1.5%	28.0%					
Gross profit	9.8%	19.6%	6.6%	29.6%	13.8%	23.3%	5.8%	26.4%					
Op income	9.0%	13.9%	9.3%	14.7%	33.5%	8.7%	23.9%	15.2%					
Net income	3.7%	23.3%	5.8%	20.2%	23.3%	16.0%	14.6%	23.8%					
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Source: Company data, Barclays Research estimates

FIGURE 6
Sunny Optical – income statement

Year-end 31 Dec (RMB mn)	2013	2014	2015E	2016E	2017E
Total revenue	5,813	8,426	11,631	14,798	16,894
COGS	-4,846	-7,137	-9,782	-12,353	-14,095
Gross profit	967	1,289	1,849	2,445	2,799
Operating expenses	-505	-712	-990	-1,253	-1,407
EBITDA	620	792	1,106	1,476	1,719
Depreciation and amortization	-158	-215	-247	-284	-327
EBIT	462	577	859	1,192	1,392
Interest Income	0	0	0	0	0
Interest expense	-7	-14	-14	-14	-14
Net Interest income/ expense	-7	-14	-14	-14	-14
Gains on disposals	0	0	0	0	0
Net associated profits	-1	1	2	4	10
Other net gains/losses	50	70	81	89	98
Profit before tax	504	634	928	1,272	1,487
Tax	-64	-73	-110	-143	-184
Profit after tax	441	561	818	1,128	1,302
Minority interest	-1	4	4	4	4
Net profit	440	566	822	1,133	1,307
Average weighted no. of ordinary shares	1,062	1,062	1,062	1,062	1,062
Basic EPS (RMB)	0.41	0.53	0.77	1.07	1.23
Source: Company data Barclays Research estimate	S				

Source: Company data, Barclays Research estimates

FIGURE 7
Sunny Optical – cash flow statement

Year-end 31 Dec (RMB mn)	2013	2014	2015E	2016E	2017E
Net profit	440	566	822	1,133	1,307
Depreciation	158	215	247	284	327
Associate share of (profits)/ loss	1	-1	-2	-4	-10
Total gross cash flow	598	779	1,067	1,413	1,623
Change in total working capital	-577	-250	-581	-687	-449
Total operating cash flow	21	530	486	726	1,174
Capex less disposals	-223	-465	-402	-463	-532
Change in other assets	-99	-178	-111	-110	-73
Change in associates	0	-61	0	0	0
Total investment cash flow	-322	-704	-513	-572	-604
Change in gross debt	386	33	300	200	100
Change in other long term liabilities	5	23	0	0	0
Change in equity	488	-175	-238	-329	-379
Total financing cash flow	880	-119	62	-129	-279
Total cash flow	579	-294	34	25	291
Cash balance at beginning of the year	244	823	529	563	588
Cash balance at end of the year	823	529	563	588	879

Source: Company data, Barclays Research estimates

FIGURE 8
Sunny Optical – balance sheet

As at 31 Dec (RMB mn)	2013	2014	2015E	2016E	2017E
Cash and equivalent	823	529	563	588	879
Receivables	1,192	2,388	3,132	3,985	4,549
Inventory	768	896	1,228	1,550	1,769
Other current assets	984	391	540	687	784
Total current assets	3,766	4,204	5,463	6,810	7,982
Net fixed assets	785	1,035	1,190	1,369	1,574
Other assets	114	292	403	512	585
Associates & other LT investments	0	63	65	69	79
Total other assets	899	1,389	1,658	1,950	2,238
Total assets	4,665	5,594	7,120	8,760	10,219
Short term debt	489	522	822	1,022	1,122
Payables	1,257	1,744	2,391	3,019	3,445
Current portion of LT liabilities	11	11	0	0	1
Other current liabilities	25	20	27	34	39
Total current liabilities	1,782	2,297	3,240	4,075	4,606
Long term debt	0	0	0	0	0
Other liabilities	23	46	46	46	46
Total other liabilities	23	46	46	46	46
Total liabilities	1,805	2,343	3,286	4,121	4,653
Share capital	105	105	105	105	105
Share premium and other reserves	2,745	3,143	3,726	4,531	5,458
Minority Interest	10	3	3	3	3
Total equity	2,860	3,251	3,834	4,639	5,566
Total liabilities and equity	4,665	5,594	7,120	8,760	10,219
Source: Company data, Barclays Research estimates					

Source: Company data, Barclays Research estimates

FIGURE 9
Sunny Optical – key financial ratios

Year-end 31 Dec (RMBmn)	2013	2014	2015E	2016E	2017E
Profitability					
Gross margin (%)	16.64	15.30	15.89	16.52	16.57
Operating margin (%)	7.95	6.85	7.38	8.06	8.24
Pre-tax margin (%)	8.68	7.52	7.98	8.59	8.80
Net margin (%)	7.56	6.71	7.07	7.66	7.73
Financial					
Cash (Rmb mn)	823	529	563	588	879
Net Debt (Rmb mn)	-334	-7	258	433	242
Net Debt/Equity (%)	-11.7	-0.2	6.7	9.3	4.4
Debt/Equity (%)	17.1	16.0	21.4	22.0	20.1
Current Ratio (x)	2.1	1.8	1.7	1.7	1.7
Quick Ratio (x)	1.1	1.3	1.1	1.1	1.2
Performance					
ROA (%)	11.5	11.0	12.9	14.3	13.8
ROE (%)	18.3	18.5	23.2	26.7	25.6
ROIC (%)	11.9	13.4	16.1	18.5	18.1
Asset Turnover (X)	1.5	1.6	1.8	1.9	1.8
Inventory processing days	57.1	42.5	39.6	41.0	43.0
A/R collection days	68.5	77.5	86.6	87.8	92.2
A/P payment days	82.7	76.8	77.2	79.9	83.7
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Source: Company data, Barclays Research estimates.

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Primary Stocks (Ticker, Date, Price)

Sunny Optical Technology (2382.HK, 17-Jun-2015, HKD 16.06), Overweight/Positive, J

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IMPORTANT DISCLOSURES CONTINUED

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Our coverage analysts use a relative rating system in which they rate stocks as Overweight, Equal Weight or Underweight (see definitions below) relative to other companies covered by the analyst or a team of analysts that are deemed to be in the same industry (the "industry coverage universe").

In addition to the stock rating, we provide industry views which rate the outlook for the industry coverage universe as Positive, Neutral or Negative (see definitions below). A rating system using terms such as buy, hold and sell is not the equivalent of our rating system. Investors should carefully read the entire research report including the definitions of all ratings and not infer its contents from ratings alone.

Stock Rating

Overweight - The stock is expected to outperform the unweighted expected total return of the industry coverage universe over a 12-month investment horizon.

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Below is the list of companies that constitute the "industry coverage universe":

Asia ex-Japan Wireless Equipment & Products

AAC Technologies Holdings (2018.HK)	BYD Electronics (0285.HK)	Casetek Holdings Limited (5264.TW)
Catcher Technology Co., Ltd. (2474.TW)	FIH Mobile Ltd. (2038.HK)	HTC Corp. (2498.TW)
Largan Precision Co., Ltd. (3008.TW)	LG Electronics (066570.KS)	Primax Electronics (4915.TW)
Sunny Optical Technology (2382.HK)	TCL Communication (2618.HK)	Unimicron Technology Corp. (3037.TW)
Yageo Corporation (2327.TW)	Zhen Ding Technology (4958.TW)	ZTE Corporation (0763.HK)

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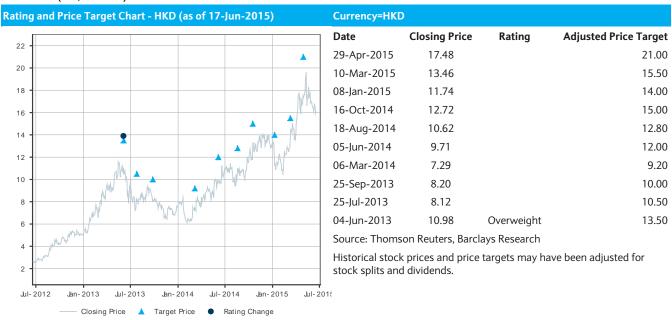
IMPORTANT DISCLOSURES CONTINUED

Sunny Optical Technology (2382 HK / 2382.HK) Stock Rating HKD 16.06 (17-Jun-2015)

OVERWEIGHT

Industry View

Ρ	OS	IT	٦١	/I



Source: IDC, Barclays Research

Link to Barclays Live for interactive charting

J: Barclays Bank PLC and/or an affiliate trades regularly in the securities of Sunny Optical Technology.

Valuation Methodology: Our 12-month price target of HK\$21 is based on a blended target P/E multiple of 18x applied to our 2015-16E average EPS estimate of HK\$1.16 (or RMB0.92). Sunny's forward P/E has averaged 12x over the past three years (since China smartphone volumes took off in 2011), with +1SD at 15x. Our target multiple of 18x represents a premium to its average since 2011, as we believe our price target should reflect the company's growth outlook both in terms of secular earnings for the next 12 months and new growth drivers from non-smartphone (especially vehicle lens) applications.

Risks which May Impede the Achievement of the Barclays Research Price Target: Key downside risks to our price target include: 1) weaker demand in China smartphones, despite 4G ramps in China and overseas expansion from China brands. This would likely be due to a potential inventory correction, and market share losses in Sunny's China smartphone clients competing for orders from Apple and Samsung in the highend market; 2) greater margin contraction in the camera module business than we already expect, due to more severe pricing pressure on legacy 8MP/13MP models from Sunny's major clients, slower mega-pixel migration and rising industry competition; 3) lower-than-expected orders from Samsung for handset camera lenses if most of Samsung's lens manufacturing remains in-house; and 4) slower-than-expected development of Google's Tango project, which we regard as a potential re-rating catalyst for Sunny in 2015-16.

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