

Smartphone demand recovery on track in 2H22F

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- Looking ahead to 2H22F: Smartphone demand recovery, easing supply chain constraints and China's Omicron containment.
- 2Q22F: China's Omicron pandemic, production and logistics disruptions and weak China smartphone demand are almost behind us.
- Global smartphone shipments set to resume growth in 3Q-4Q22F due to easing smartphone component shortages, improving logistics and production efficiency in China and a new wave of new model launches.
- China's smartphone sector valuation correction appears to be over. It is trading at an attractive 12x prospective P/E (5-year low for the sector).
- We reiterate Overweight on China's smartphone sector. Our sector top picks are Xiaomi, Sunny Optical and Will Semiconductor.



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Investment View:

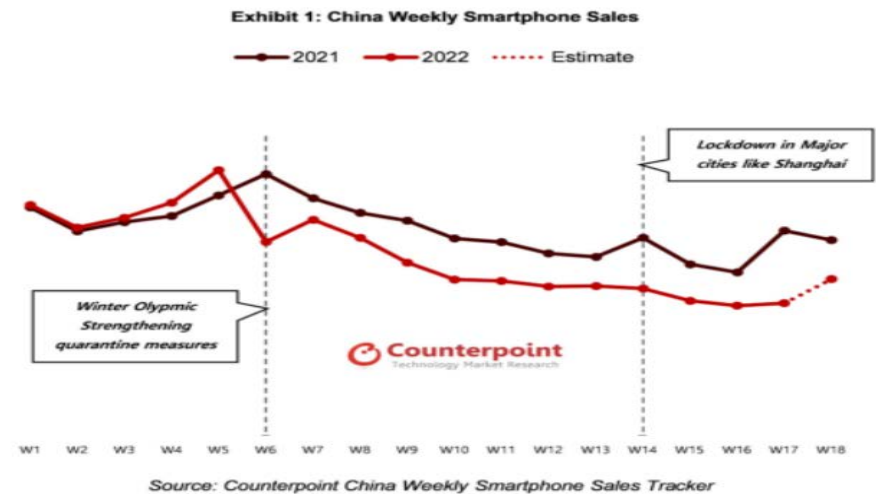
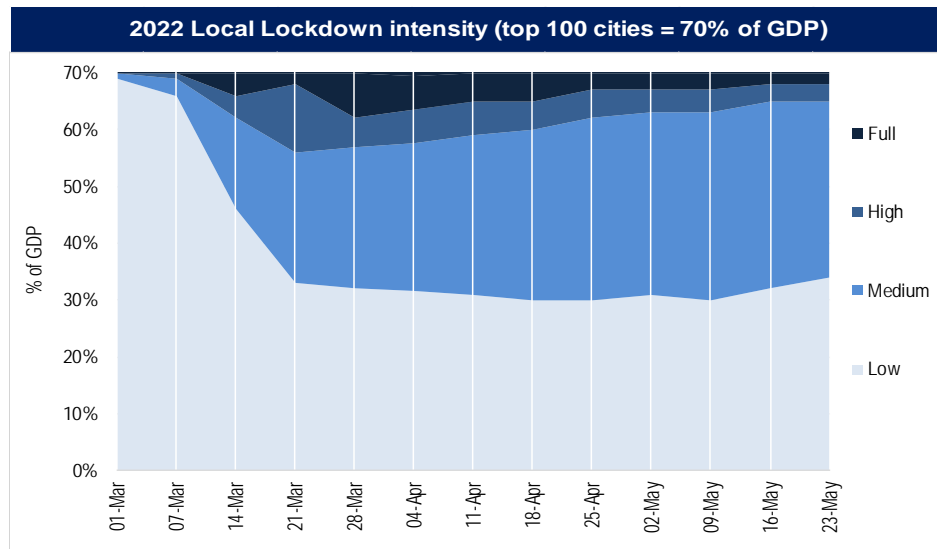
- **Poor 1Q22 results in the China smartphone sector.** 11 of our 15 coverage companies in China's smartphone sector have released their 1Q22 results. The average 1Q22 revenue in the sector rose only 4% yoy; most companies' revenues were lower than expected, due to production and logistics disruptions as a result of the Shenzhen and Shanghai lockdowns amid the Omicron outbreak, along with the weak China smartphone market. Most of the handset component manufacturers also suffered from huge margin pressures on surging materials costs and low production efficiency.
- **The China smartphone sector's average consensus EPS cut by c.18% since Feb 2022.** Based on Bloomberg EPS consensus' figures, the China smartphone sector's average consensus EPS has been revised downwards by c.18% since Feb 2022 due to the Omicron outbreak, which caused factory production suspensions and logistics disruptions, and harmed China's smartphone demand. We believe the consensus forecast downgrades will be over in May, on the back of easing Covid-19 Omicron cases in Shanghai and recovering production efficiency.
- **1Q22/2Q22F global smartphone shipments to see yoy decline.** 1Q22 global smartphone shipments fell 7% yoy due to: 1) 4G chipset shortages, 2) production and logistics disruption in China amid Omicron outbreak, and 3) weak China smartphone demand. We expect 2Q22F global smartphone shipments to remain weak due to the lockdowns in Shanghai and Eastern Chinese cities (where the key semiconductor production hub is located in China), continued poor factory outputs and logistic issues due to epidemic containment measures in Apr/May. Although most of the handset manufacturers mentioned that their factory efficiency has been gradually improving since end-Apr, we expect them to achieve only 70-80% of their total production capacity. We expect to see full production recovery in 2H2022F, thanks to relaxation of epidemic control measures in China.

Investment View:

- **Chinese handset brands could cut forecasts by c.200m units for 2022F.** We believe Xiaomi, Oppo and Vivo and other major Chinese brands, such as Honor, Realme, Lenovo, Transsion, etc., have cut their guidance for 2022F shipments by c.200m units combined due to chip shortages, low production efficiency, logistics issues and the Russia-Ukraine war. We forecast Xiaomi/Oppo/Vivo's (XOV) 2022F smartphone shipments to fall 5%/5%/8% yoy, due to poor smartphone sales in China and overseas markets in 1H22F (*we cut our shipment forecasts by c.108m units for 2022F vs. our previous forecast at the beginning of 2022*). XOV's combined shipments could decline by 6% yoy to 436m units in 2022F.
- **Global smartphone shipments set to recover in 2H2022F.** We expect global smartphone shipments to recover in 2H2022F, underpinned by a recovery in China smartphone demand, improvements in factory production output, fewer logistics disruptions in China, easing smartphone chip shortages, and a new wave of new model launches in 3Q22F.
- **Chip shortage to continue easing in 2H2022F.** We expect the global semiconductor chip shortage will continue to ease in 2H2022F as demand-supply gaps narrow across mainstream application processors, such as such as 5G System on Chip (SoC), CMOS imaging sensor (CIS), Display Driver IC/Touch and Display Driver Integration (DDIC/TDDI) and Radio-frequency ICs (RFICs), etc, thanks to an increase in wafer production capacity and continued supplier diversification.
- **Reiterate Overweight on China's smartphone sector.** We think the China smartphone sector's valuation is now attractive at 12x prospective P/E, the lowest level in the last five years and a 36% discount to its 5-year average, after over five months of correction (the sector's average share price is down 36% YTD). We believe that the current valuation has fully reflected the short-term headwinds in the global smartphone market and handset component manufacturing sector. We reiterate Overweight on China's smartphone sector and advise investors to revisit the sector as we expect a strong smartphone shipment recovery in 2H2022F.
- **Our sector top picks:** Our sector top picks are Xiaomi, Sunny Optical and Will Semiconductor as we believe they will continue to gain market share, launch innovative new products, and achieve strong operating cashflow.

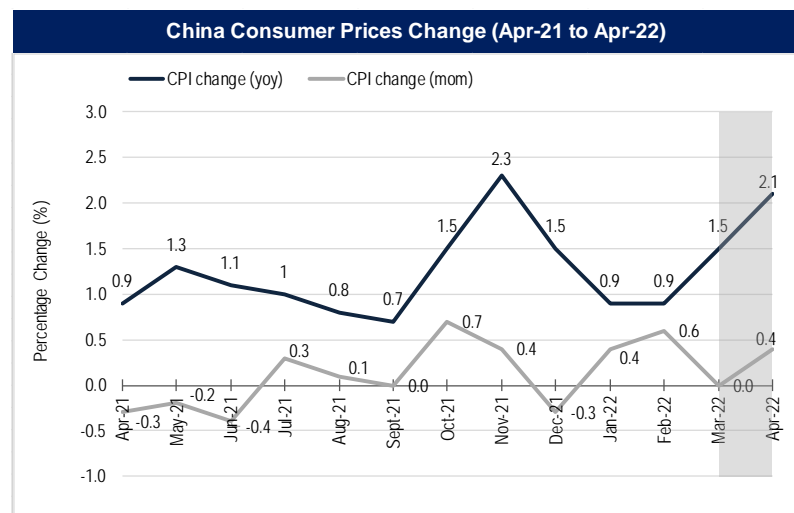
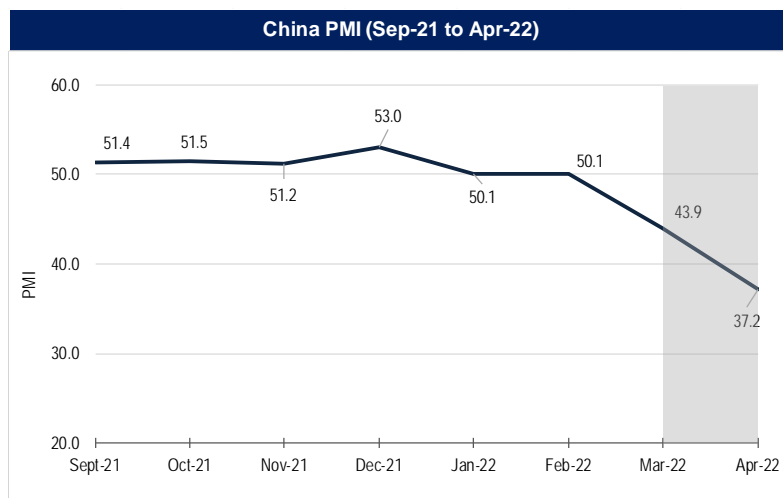
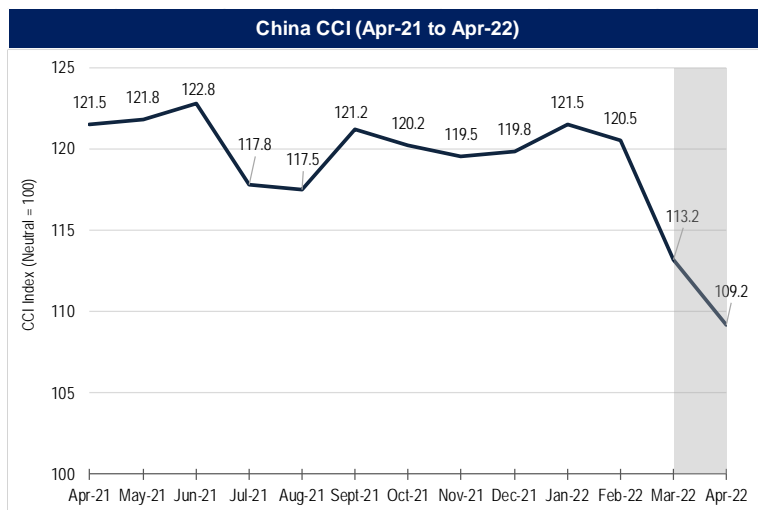
1Q22 China smartphone sector’s company results snapshot and 2Q22F outlook

- The sector’s average 1Q22 revenue increased by 4% yoy.** The China smartphone sector (handset components manufacturers and handset makers, totalling 15 companies under CGS-CIMB’s coverage) recorded a mere 4% yoy increase in average 1Q22 revenue due to strong industry headwinds, such as :1) production suspension, 2) logistics disruptions, 3) supply chain constraints (especially in 4G smartphone chipsets and automotive-related chips), 4) weak China smartphone demand amid the Omicron outbreak in China, as well as 5) the Ukraine-Russia war. The sector’s average 1Q22 net profit fell 38% yoy, given the significant margin squeeze due to low production efficiency and surging input costs. We believe the more-than-5-week lockdown in Shanghai (*we estimate Shanghai accounts for c.20-25% of semiconductor industry production in China*) caused significant impact on the revenue and profitability of handset component manufacturers and on smartphone sales in China.
- Significant surge in material and manufacturing costs in 1Q22.** The 1) rapidly rising input prices (chips, components and logistics costs), 2) low production efficiency (due to epidemic control measures in Shenzhen, Shanghai and other major cities, factories were under closed-loop management systems and faced logistics disruptions), and 3) weak consumption demand for smartphones and consumer electronic products significantly dragged the sector’s gross profit margin (GPM); sector average GPM fell 250bp yoy in 1Q22.
- 2Q22F outlook remains challenging despite improvement in May/Jun.** Given the lockdown measures in Shanghai and Eastern China since end-Mar, manufacturers have generally guided that revenue will continue to decelerate in 2Q22F as they expect the logistics bottleneck to likely hinder Apr-May product delivery and revenue recognition. However, most of the component makers mentioned that their production resumption is on track to recover in May/Jun due to relaxation measures in major cities, thanks to fading Omicron cases in Shanghai and Eastern China.



SOURCES: CGS-CIMB RESEARCH, VARIOUS WEBSITES, CHINA GOVERNMENT WEBSITES, COUNTERPOINT

China's Macro Economy: Declining China retail sales, consumer confidence, PMI and CPI



SOURCES: CGS-CIMB RESEARCH, CHINA GOVERNMENT WEBSITES

China's smartphone sector 1Q22 results overview

- Sector average 1Q22 revenue increased by 4% yoy.** The China smartphone sector average 1Q22 revenue increased by a mere 4% yoy due to strong industry headwinds, such as: 1) production suspension, 2) logistics disruptions, 3) supply chain constraints, and 4) weak China smartphone demand amid the Covid-19 Omicron outbreak in China, as well as 5) the Ukraine-Russia war.
- Sector average 1Q22 net profit fell 38% yoy.** The sector's average 1Q22 net profit fell 38% yoy, given the significant margin squeeze due to low production efficiency and surging input costs.
- Sector average sector GPM fell 250 bps yoy in 1Q22.** The 1) rapidly rising input prices, 2) low production efficiency, and 3) weak consumption demand for smartphone and consumer electronics products significantly dragged down the sector's GPM — 1Q22 average GPM: -250 bps yoy. AAC Tech, BOE Tech and Lens Tech's 1Q22 GPMs dropped the most among handset component manufacturers. AAC Tech's GPM dropped c.12% pts yoy to 19.5% in 1Q22, due to sharp margin declines in its optics business. BOE Tech's GPM fell c.7% pts yoy to 21.4% in 1Q22 due to a decrease in LCD TV panel prices. Lens Technology GPM retracted 10.0% pts yoy to 11.2% due to increased input costs and 3-week Dongguan factory closure.

Company	Code	Revenue growth (yoy % chg)	GPM(yoy % pts chg)	Net profit growth (yoy % chg)	Above/ below Bloomberg consensus	Revenue drivers	GPM drivers
AAC Technologies	2018 HK	14%	-11.60% pts	-61%	In line with expectaton	Revenue grew by 14% yoy, driven by stable orders in acoustics and haptics for Apple.	GPM dropped 11.6% pts yoy, mainly dragged down by the optics segment.
ASM Pacific	522 HK	22%	1.01% pts	57%	Slightly above expectation	Revenue grew 22% yoy, driven by strong semiconductor solutions from Chinese customers	GPM expanded by 1.0% pt yoy on better capacity utilisatoin despite supply chain challenges.
BOE Technology - A	000725 CH	0%	-6.75% pts	-17%	5% below expectation	Revenue stayed flat, driven by strong shipment growth in large-sized LCD TV panels but offset by weak smartphone demand.	GPM fell 6.75% pts yoy due to decrease in TV panel price.
Lens Technology - A	300433 CH	-22%	-10.00% pts	Tuned to net loss	Well below expectation	Revenue dropped 22% yoy because of supply chain disruptions and low production efficiency.	GPM declined 10% pts yoy due to rising raw materials cost and low production yield in new businesses.
Shenzhen Goodix - A	603160 CH	-38%	-3.80% pts	Tuned to net loss	Well below expectation	Revenue dropped 38% yoy due to sustainaed ASP pressure on fingerprint products.	GPM decreased 3.80% pts yoy, impacted by keener competition and the pandemic in China.
SMIC	981 HK	67%	18.10% pts	182%	20% beat	Wafer revenue jumped 67% yoy, driven by wafer shipments and ASP growth.	GPM increased 18.1% pts yoy due to product mix change, strong shipment and ASP growth.
Tongda Group	698 HK	-7%	N/A	N/A	10% below	Handset revenue fell 25% yoy due to weak smartphone customer demand and the impact of the pandemic in China.	Sustained GPM pressure on falling handset casing ASP and keener competition.
Tianma Microelectronics - A	000050 CH	-1%	4.10% pts	Turned to profitable	42% below	Revenue fell 1% yoy due to weaker smarphone customer demand but offset by strong demand in professional displays.	GPM expanded 4.1% pts yoy (-5.7% qoq) to 13.9% due to production disruption
Universal Scientific Industrial - A	601231 CH	28%	0.70% pts	79%	10% beat	Revenue grew 27.6% yoy, driven by demand in auto electronic, PC, and telecommunications.	GPM expanded by 0.70% pt yoy due to excellent cost control.
Will Semiconductor - A	603501 CH	-11%	2.90% pts	-14%	In line with expectaton	Revenue decreased by 11% yoy, impacted by sluggish smartphone market and the impact of the pandemic in China.	GPM expanded by 2.90% pts yoy due to higher proportion of auto CIS and TDDI.
Xiaomi	1810 HK	-5%	-1.10% pts	-53%	In line with expectaton	Smartphone shipments fell 22% yoy due to supply chain constraints and poor China smartphone market.	Smartphone GPM fell 3.0% pts yoy due to increase in input costs.

Our coverage's EPS and target prices were cut due to China's Omicron outbreak

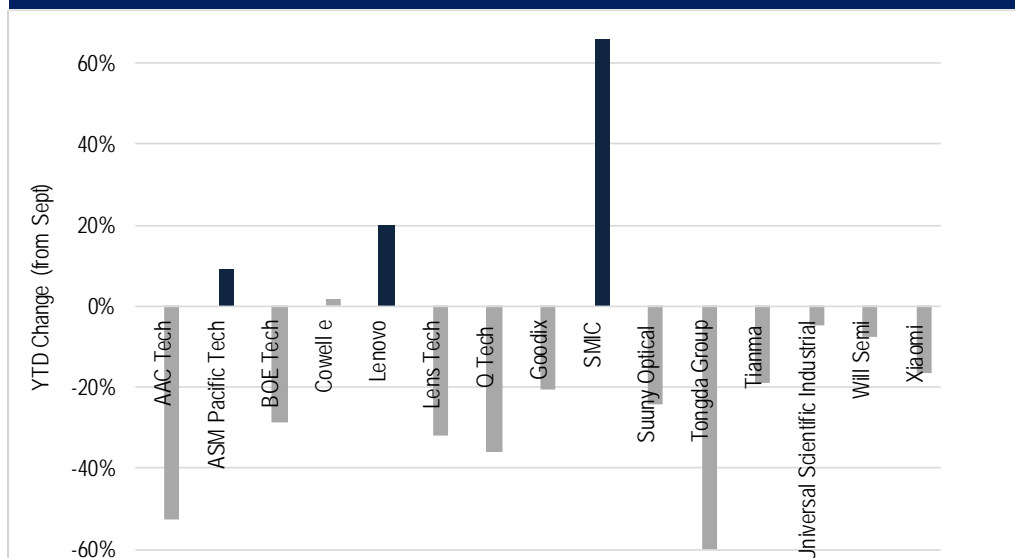
- We revise down our FY22F EPS for handset components makers under our coverage to reflect poor 1H22F results outlook, due to the impact of the Omicron outbreak, which caused factory production suspension, logistics disruptions, and weakened China smartphone demand.
- We remain positive on strong earnings recovery in FY23F, underpinned by: 1) recovery of global smartphone demand, 2) ease of global chip shortages, and 3) continued smartphone specification upgrades.
- We also cut our target prices to reflect the sector valuation de-rating, on the back to the short-term industry headwinds and weaker earnings outlook in FY22F.

Company	Code	Date change	Recommendation change	FY22F EPS cut/raise (%)	FY23F EPS cut/raise (%)	TP changed (%)	New target price	Target price basis	Share price (as at 23 May 2022)	Upside / downside to target price	1) Share price catalyst / 2) Risk
AAC Technologies	2018 HK	12 May 2022	Maintain Reduce	-11%	38%	-19%	HK\$ 13.54	9x FY23F P/E (previously 10x)	HK\$ 16.30	-17%	1) Sustained margin pressure in optics business 2) Better-than-expected GPM recovery in acoustics/haptics
ASM Pacific	522 HK	21 Apr 2022	Maintain Add	12%	10%	0%	HK\$ 134.00	3.5x FY22F P/BV (No change)	HK\$ 71.65	87%	1) Relief from fewer component shortages and logistic issues 2) Decreasing capex and supply chain issues
BOE Technology - A	000725 CH	04 May 2022	Maintain Add	-39%	10%	-25%	CNY 6.34	1.6x FY22F P/BV (previously 2.2x FY21 P/BV)	CNY 3.91	62%	1) Stabilised LCD TV panel price and robust AMOLED shipments 2) Poor profitability in AMOLED on low production yield
Cowell e Holdings	1415 HK	28 Mar 2022	Maintain Add	5%	31%	-15%	HK\$ 12.05	14x FY23F P/E (previously 18x FY22F P/E)	HK\$ 7.13	69%	1) Strong iPhone sales and revenue growth in LiDAR components 2) Pressuring GPM and slow upgrades in iP14 front-facing camera
Lenovo Group	992 HK	24 Feb 2022	Maintain Add	113%	22%	4%	HK\$ 13.78	10.5x FY23F P/E (previously 13x FY22F P/E)	HK\$ 7.73	78%	1) Stable PC shipments and margin 2) Persistent CPU shortage
Lens Technology - A	300433 CH	28 Apr 2022	Maintain Add	11%	24%	-51%	CNY 16.40	22x FY23F P/E (previously 25x FY22F P/E)	CNY 10.16	61%	1) Relief from decreasing Omicron cases in China and GPM recovery 2) Weak customer demand.
Q Technology	1478 HK	31 Mar 2022	Maintain Add	1%	17%	-26%	HK\$ 10.56	10x FY23F P/E (No change)	HK\$ 5.26	101%	1) Improved HCM GPM, and trending new-tech camera modules 2) Sustained GPM pressure in HCM
Shenzhen Goodix - A	603160 CH	10 May 2022	Maintain Reduce	-10%	15%	-40%	CNY 55.15	30x FY23F P/E (previously 35x FY22F P/E)	CNY 59.27	-7%	1) Fast-growing auto ICs and touch controller ICs shipments 2) Sustained GPM pressure in fingerprint products
SMIC	981 HK	13 May 2022	Maintain Add	14%	-10%	-13%	HK\$ 23.80	1.4x FY22F P/BV (previously 1.6x)	HK\$ 16.82	41%	1) Less export restrictions by the US government 2) Postponed equipment delivery from overseas suppliers
Sunny Optical	2382 HK	11 Apr 2022	Maintain Add	11%	30%	-19%	HK\$ 177.20	22x FY23F P/E (previously 26x)	HK\$ 113.50	56%	1) Strong HLS shipments for Apple 2) Rapid ADAS development and rising orders from EV makers
Tianma Microelectronics - A	000050 CH	05 May 2022	Maintain Add	-14%	8%	-22%	CNY 15.72	1.2x FY22F P/BV (previously 1.4x FY21 P/BV)	CNY 9.27	70%	1) Stable LTPS GPM 2) Slower growth in OLED manufacturing
Universal Scientific Industrial - A (USI)	601231 CH	28 Apr 2022	Maintain Add	20%	19%	-14%	CNY 18.32	15x FY23F P/E (previously 18x)	CNY 12.53	46%	1) Strong auto electronics demand and wider SiP adoption 2) Intense competition in SiP and weak shipment growth
Will Semiconductor - A	603501 CH	29 Apr 2022	Maintain Add	10%	22%	-36%	CNY 221.00	32x FY23F P/E (previously 50x FY22F P/E)	CNY 165.47	34%	1) Sustained auto CIS market share gains 2) Higher production costs and keener competition in CIS
Xiaomi	1810 HK	11 May 2022	Maintain Add	-21%	-25%	-27%	HK\$ 19.84	20x FY23F P/E (No change)	HK\$ 11.50	73%	1) Recovery in smartphone shipments 2) Easing of supply chain constraints

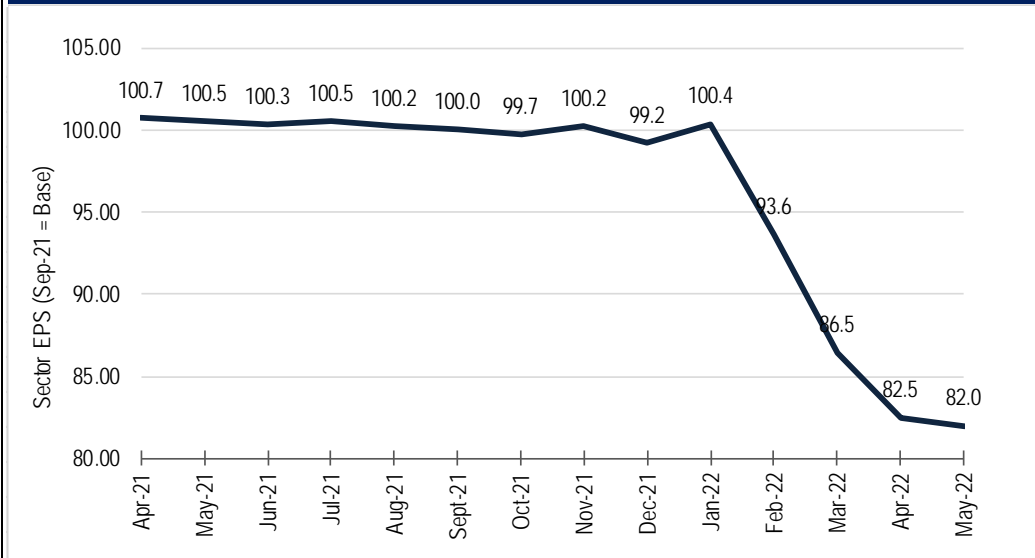
Bloomberg consensus' EPS downgrade trend continued since Feb 2022

- Bloomberg consensus' EPS forecast for the China smartphone sector (handset components manufacturers and Xiaomi) registered an 18% cut since Feb 2022, on the back of the Shenzhen lockdown in Mid-Mar and the Shanghai and Eastern China cities' lockdowns in Apr, as well as weaker-than-expected 1Q22 results.
- SMIC and ASM Pacific's EPS were revised upward during Mar to April 2022 as they benefited from the semiconductor supply constraints and strong domestic customer demand. Lenovo EPS was also uplifted on better-than-expected PC margin outlook.
- AAC Tech and Tongda's EPS were cut by over 50% due to poor GPM outlook, no thanks to sustained margin pressure on legacy products and lowered margins on the new product segment. Handset component makers generally received EPS cuts of around 20% to 40% to reflect lowered profitability in 1H22F, on the impact from China's Omicron outbreak and weak China smartphone sales.
- We expect the China smartphone sector's EPS downward revision trend to end in end-May 2022 (see below-right chart), given the easing of Omicron cases in Shanghai and Eastern China, and the gradual recovery of the factories' production efficiency since May 2022.

Accumulated Bloomberg consensus EPS downgrades (Sep 2021 to May 2022)



Sector EPS downgrades (Sep 2021 to May 2022)



SOURCES: CGS-CIMB RESEARCH, BLOOMBERG

Component makers' share prices fell, reflecting EPS downgrades and sector valuation de-rating

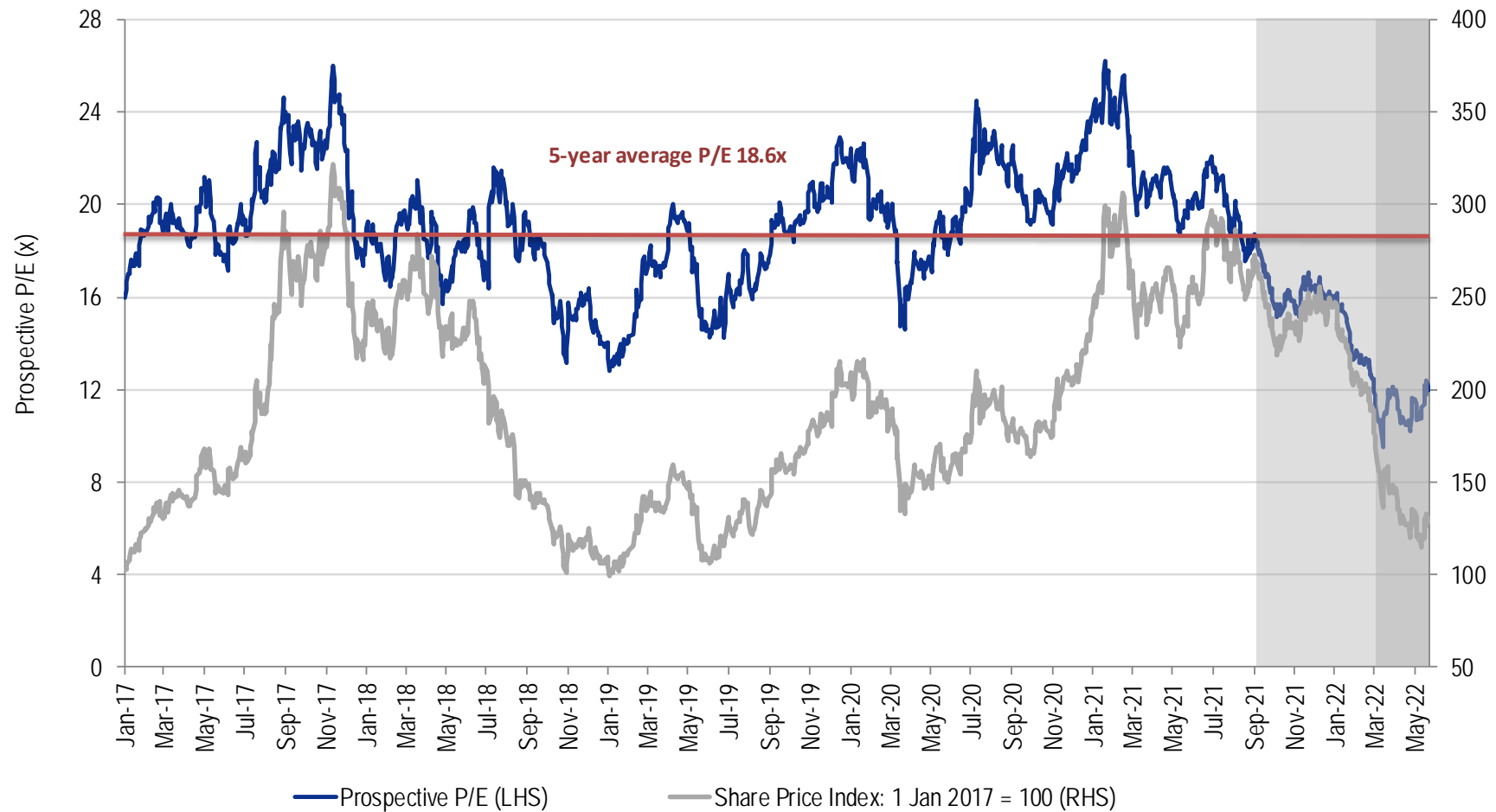
- Divergent performance between share prices and P/Es.** The below chart shows the divergence between share prices and prospective P/Es since Mar 2022, indicating significant and continued EPS downward revisions and putting huge selling pressure on the sector.
- Sector trading at 12x prospective P/E, its lowest level since 2017.** China's smartphone sector's prospective P/E has come down to 12x (36% discount to 5-year average of 18.6x), the lowest level since 2017, after over five months of correction (please see the chart in the next slide). We believe that the current valuation has fully reflected the short-term headwinds in the global smartphone market and the handset component manufacturing sector.
- Sector average share price dropped 36% YTD.** The share prices of handset component makers under our sector coverage dropped by 36% YTD on average (see below-chart). This is partly due to investors decreasing their weightings on the smartphone sector due to the continued supply chain issues and logistics disruptions, in addition to the Shenzhen and Shanghai lockdowns, which further dragged the industry's valuation, reflecting potential EPS cuts on weaker China smartphone demand outlook, weaker China economy, and lower production outputs in 2Q22F.
- The worst share price performance YTD under our coverage were Sunny Optical, Lens Tech and Will Semi,** due to their relatively higher sales exposure to handset camera and automotive applications. Xiaomi fell by c.40% YTD due to a 22% decline in smartphone shipments in 1Q22. ASMPT, Lenovo and SMIC were the outperformers (down 10-15%) as they had less sales exposure to smartphones (c.10-25% of FY21 revenue). AAC Tech's share price dropped c. 40% due to sustained margin pressure on its optics business. Q Tech and Goodix's share prices decreased by over 45% due to their high sales exposure to Chinese handset brands and significant decline in GPM in 1Q22. BOE and USI's share prices were resilient with only c.20% correction due to their better-than-expected 1Q22 results.



SOURCES: CGS-CIMB RESEARCH, BLOOMBERG

Divergent performance between share prices and P/Es (1 Jan 2017 to 23 May 2022)

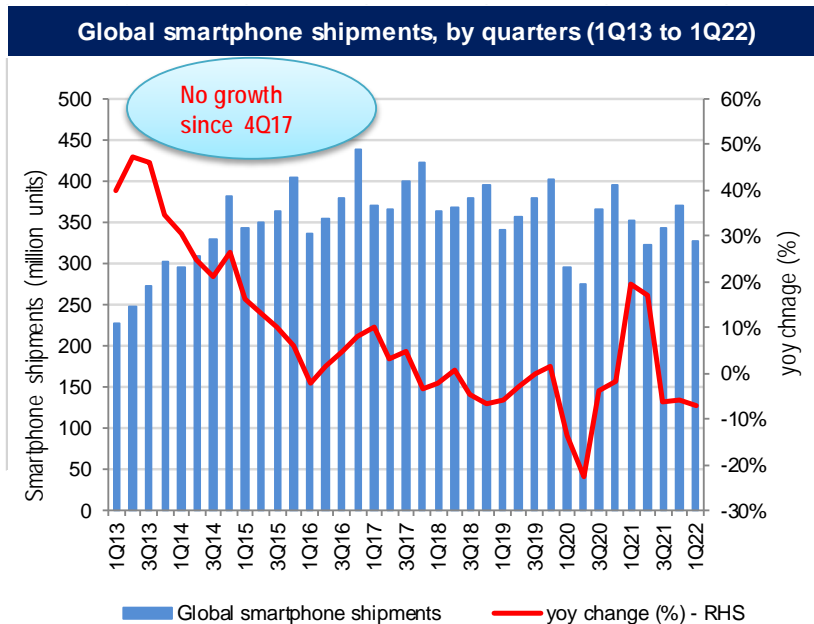
Prospective P/E vs. Share Price performance (1 Jan 2017 to 23 May 2022)



SOURCES: CGS-CIMB RESEARCH, BLOOMBERG

1Q22 global smartphone shipments fell 7% yoy

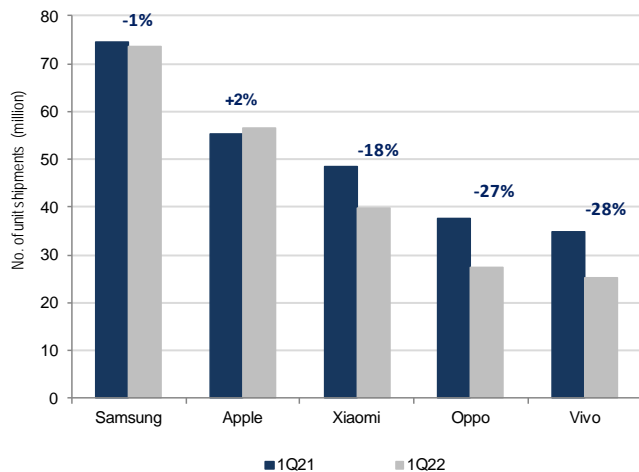
- Global smartphone shipments declined 7% yoy in 1Q22.** Global smartphone shipments declined 7% yoy to 328m units in 1Q22 (source: Counterpoint), the third consecutive quarter of decline in smartphone shipments, no thanks to persistent chip shortages, production and logistical challenges, along with softening global handset demand due to the impact of Omicron in different countries and regions, and the unexpected Russia-Ukraine war.
- Samsung and Apple’s shipments remained resilient in 1Q22.** Samsung’s shipments fell only 1% yoy as it has less sales exposure in China and its gained market share in the EU and LATAM. Apple’s shipment rose 2% yoy due to strong sales of iPhone13-series, especially in China and HK. Chinese handset vendors – Xiaomi/Oppo/Vivo’s shipments fell dramatically, -17%/-27%/-28% yoy, 1Q22, impacted by the Omicron outbreak in China and the severe 4G chipset shortage, no thanks to production and logistics disruptions and weak China smartphone demand.
- China smartphone shipments fell 18% yoy in 1Q22.** The Chinese market led drop in shipments in 1Q22 with a 18% yoy decline to 74m units, due to the lockdowns in Shenzhen and various cities in Guangzhou for a week due to the Omicron outbreak, and the poor factory output due to logistics and manufacturing challenges, as well as the worsening macroeconomic conditions in China.
- India smartphone shipments fell 5% yoy in 1Q22.** India’s smartphone shipments fell 5% yoy to 37m units due to the tight supply, especially in the low-end 4G segment, given the logistics disruptions in China.



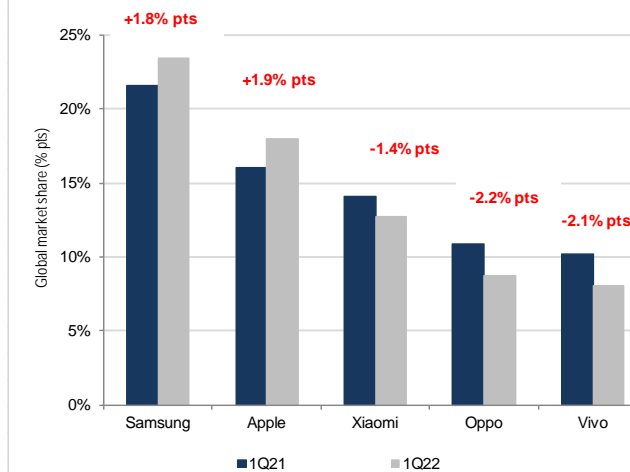
SOURCES: CGS-CIMB RESEARCH, COUNTERPOINT

1Q22 global smartphone shipments and market share

Global smartphone sales by volume, top 5 brands (1Q22 vs 1Q21)

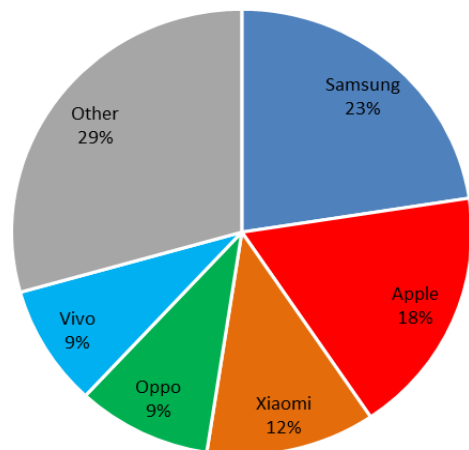


Global smartphone market share, top 6 brands (1Q22 vs 1Q21)

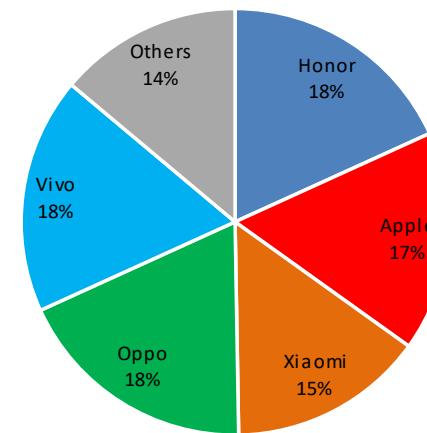


SOURCES: CGS-CIMB RESEARCH, COUNTERPOINT

Global smartphone market share (1Q22)



China smartphone market share (1Q22)



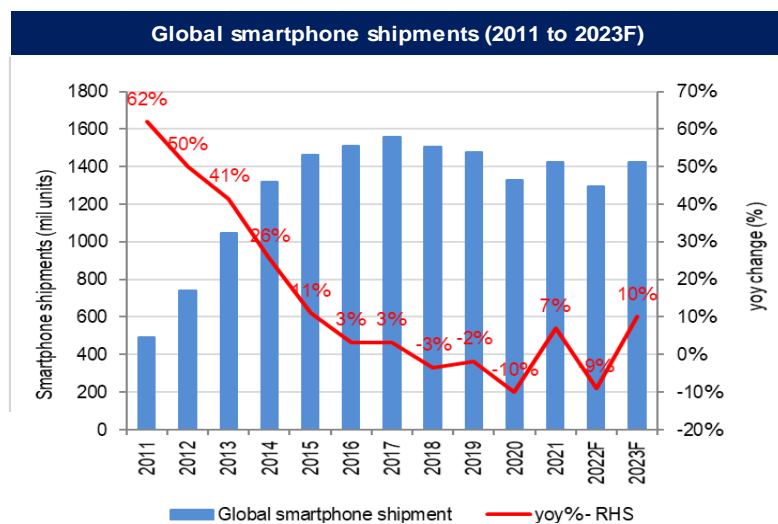
SOURCES: CGS-CIMB RESEARCH, COUNTERPOINT

Global smartphone shipments to remain weak in 2Q22F but set to recover in 2H2022F

- **Outlook for global smartphone shipments remains weak for 2Q22F.** We believe global shipments could decline by c.10% yoy in 2Q22F due to the lockdowns in Shanghai and Eastern cities in China (*one of the major Foxconn manufacturing bases for iPhones in Kunshan, and Shanghai is the key semiconductor production hub in China*), which hurt China's ports, logistics and smartphone supply chains.
- **Chinese brands' overseas sales could be hurt in 2Q22F.** We believe Chinese vendors' overseas shipments could fall by over 20% yoy in 2Q22F due to logistics issues in China, which is causing shortages of key components in India. Meanwhile, the manufacturing regulations in China amid the Omicron outbreak (in April/May) and labour shortages also affected production output and efficiency.
- **Lockdown has affected handset vendors' 2022F strategy.** Most handset vendors are adopting a more conservative strategy in 2022F, focusing on the high-end segment to protect their profitability and their brands' positioning in their major markets, such as China, India, Southeast Asia and the EU. They are also postponing new model launches and are focusing more on bill of materials (BOM) costs, forgoing expensive components and innovations, which would also substantially affect consumers' appetite for new phones.
- **Chinese handset brands could cut forecasts by c.200m units for 2022F.** Overall, we believe Xiaomi, Oppo and Vivo and other major Chinese brands, such as Honor, Realme, Lenovo, Transsion, etc., have cut their guidance for 2022F shipments by c.200m units Combined due to chip shortages, low production efficiency, logistics issues and the Russia-Ukraine war.
- **We expect global smartphone shipments to recover in 2H2022F.** Given that we expect China's Omicron wave to be contained by end-Jun 2022F and the logistics bottlenecks and production efficiency to continue to improve in May/Jun, we believe global smartphone shipments can resume yoy growth in 2H2022F, underpinned by 1) a recovery in Chinese smartphone demand, 2) an improvement in factory production output, 3) fewer logistics disruptions in China, 4) easing smartphone chip shortages, and 5) a new wave of new model launches in 3Q22F.

2022F global smartphone shipments could fall 9% yoy, XOV combined shipments could fall 6% yoy

- We forecast Xiaomi/Oppo/Vivo's (XOV) 2022F smartphone shipments to fall 5%/5%/8% yoy, due to poor smartphone sales in China and overseas markets in 1H22F (we cut our shipment forecasts by c.108m units for 2022F vs. our previous forecast at the beginning of 2022). XOV's combined shipments could decline by 6% yoy to 436m units in 2022F. However, we estimate XOV's shipments to rebound by 20% yoy to 522m units in 2023F, driven by c.10% shipment growth in China and over 20% shipment increase in overseas markets (India, the EU, Southeast Asia and LATAM).
- We expect Apple's 2022F shipments to grow 4% yoy to 247m units due to its better-than-rivals supply chain management and the launch of iPhone14 series. We estimate Samsung's 2022F shipment to decline 1% yoy to 270m units, mainly dragged down by poor smartphone sales in the Indian and European markets in 2Q2022F.
- We estimate global smartphone shipments to fall 9% yoy to c.1.31bn units in 2022F (previous forecast +5% yoy to 1.50bn units), mainly due to poor smartphone sales in China (-14% yoy). We expect global smartphone shipments to grow 10% yoy to 1.42bn units in 2023F due to a recovery in smartphone demand globally, thanks to an improvement in chip supplies and the global economy.



Global smartphone shipments								
No. of units (million)	2016	2017	2018	2019	2020	2021	2022F	2023F
Xiaomi	62	96	119	125	145	190	180	210
Oppo #	93	121	119	117	112	144	136	167
Vivo	72	101	102	114	109	131	120	145
China top-3 (XOV)	226	317	340	355	366	465	436	523
Samsung	310	318	292	297	256	273	270	260
Apple	215	216	206	196	201	238	247	250
# Oppo shipments included Oneplus since 3Q21								
yoy % change	2016	2017	2018	2019	2020	2021	2022F	2023F
Xiaomi	-14%	55%	24%	5%	17%	31%	-5%	17%
Oppo	112%	30%	-1%	-2%	-4%	28%	-5%	23%
Vivo	78%	40%	2%	11%	-5%	21%	-8%	21%
China top-3 (XOV)	108%	40%	7%	4%	3%	27%	-6%	20%
Samsung	-4%	3%	-8%	2%	-14%	7%	-1%	-4%
Apple	-7%	0%	-4%	-5%	3%	18%	4%	1%

SOURCES: CGS-CIMB RESEARCH, COUNTERPOINT

Easing smartphone component shortage outlook for 2022F

- We expect the global semiconductor chip shortages to continue easing in 2H2022F, as the demand-supply gaps narrow across most of the mainstream application processors such as 5G SoC, CIS, DDIC/TDDI, and RFICs, thanks to an increase in wafer production capacity and continued supplier diversification.
- The below chart showed that the demand-supply gaps have been shrinking since 4Q2021 (source: Counterpoint), which give a strong signal that the persistent global supply chain constraints for the smartphone and automotive industries are approaching an end.
- However, various industry players expect shortages to still exist, e.g. the older-generation 4G SoC and PMIC.

Component	Shortage Level in 1H21	Shortage Level in 2H21	Shortage Level in 2H22	Price Trends 2022 (yoy)
AP/SoC - Flagship 5G	●	●	●	Up c.5% in 2022 due to advanced nodes
AP/SoC - Mainstream 5G	●			Flat in 1Q, entry 5G down in 2H
AP/SoC - 4G	●	● ●	● ●	Slightly up in 1H, flat in 2H
RFIC/FEM	●	● ●		RF content will drive cost up
Memory - DRAM/MCP	●	●		Per bit price down
Memory - Flash				2Q NAND price up, 2H slight decrease
CIS - 64MP & Above				Down yoy
CIS - 12 - 48 MP	●			Down yoy
CIS - 2/5/8MP	● ●	●		Down yoy
DDIC/TDDI	● ● ● ●	● ●	●	Up c.5% in 1Q, flat in 2H
PMIC	● ● ●	● ● ●	● ●	Up 15% in 1Q, flat in 2H
Packaging Substrate	●	● ●		Down 0-5%

SOURCES: CGS-CIMB RESEARCH, COUNTERPOINT

Our sector top picks: Xiaomi, Sunny Optical, Will Semiconductor

- **We retain our Overweight rating on the China smartphone sector.** We think the sector's valuation is now attractive at 12x prospective P/E, the lowest level since 2017 and a 36% discount to its 5-year average, after a more-than-5-month correction (average sector share price is down 36% YTD). We believe the current valuation has fully reflected the short-term headwinds in the global smartphone market and the handset component manufacturing sector.
- **Our sector top picks are Xiaomi, Sunny Optical and Will Semiconductor.** We recommend investors to invest in the industry leaders who are: 1) gaining market share, 2) continuously launching innovative new products, and 3) achieving strong operating cashflow, such as Xiaomi, Sunny Optical and Will Semiconductor.
- **Sector valuation re-rating catalysts include:** 1) global containment of the Covid-19 pandemic, 2) easing of supply chain constraints, and 3) resumption of global smartphone shipment growth.
- **Risks:** Sustained RMB/US\$ depreciation, worsened Russia-Ukraine war, and further increase in component prices and logistics costs.

Peers comparison

Company	Bloomberg		Price (local curr)	Target Price (local curr)	Market Cap (US\$ m)	P/E (x)		3-year EPS CAGR (%)		P/BV (x)		Recurring ROE (%)		EV/EBITDA (x)		Dividend Yield (%)	
	Ticker	Recom.				CY22F	CY23F	CY22F	CY23F	CY22F	CY23F	CY22F	CY23F	CY22F	CY23F	CY22F	CY23F
Handset vendors																	
Lenovo Group	992 HK	Add	7.73	13.78	11,858	5.8	5.2	N/A	2.3	1.7	44.5%	37.1%	2.1	1.4	6.1%	6.7%	
Xiaomi	1810 HK	Add	11.50	19.84	36,649	13.6	11.4	2.4%	1.6	1.4	12.9%	13.3%	9.7	7.4	0.0%	0.0%	
Samsung Electronics	005930 KS	Add	67,900	83,000	320,639	9.8	8.0	18.2%	1.4	1.2	14.8%	16.0%	4.1	3.1	2.1%	2.1%	
Apple	AAPL US	Not Rated	143.11	N/A	2,316,261	23.3	21.8	5.0%	38.3	31.2	153.1%	146.6%	17.0	16.4	0.6%	0.7%	
Average						13.1	11.6	8.5%	10.9	8.9	56.3%	53.3%	8.2	7.1	2.2%	2.4%	
Handset components - Casings / EMS																	
BYD Electronic	285 HK	Not Rated	15.82	N/A	4,541	12.8	8.6	15.0%	1.2	1.0	9.4%	12.8%	5.7	4.6	0.8%	1.2%	
Tongda Group	698 HK	Hold	0.14	0.28	172	2.7	2.1	N/A	0.1	0.1	6.5%	7.7%	1.7	1.4	5.7%	7.0%	
Lens Technology	300433 CH	Add	10.16	16.40	7,596	15.3	12.4	16.5%	1.1	1.0	7.6%	8.7%	8.8	7.6	1.6%	2.0%	
Luxshare Precision	002475 CH	Not Rated	30.35	N/A	32,333	21.6	16.4	30.5%	4.6	3.7	22.9%	23.5%	12.5	9.8	0.4%	0.6%	
Shezhen Everwin in Precision	300115 CH	Not Rated	8.58	N/A	1,550	10.9	9.0	N/A	1.5	1.3	10.5%	11.4%	N/A	N/A	1.0%	1.5%	
Nanofilm Technologies	NANO SP	Add	2.46	3.50	1,177	20.1	16.4	21.8%	3.3	2.9	17.7%	18.8%	12.2	10.0	1.2%	1.5%	
Catcher Technology	2474 TT	Not Rated	160.50	N/A	3,956	14.2	14.3	3.0%	0.8	0.8	5.4%	5.2%	2.6	2.3	6.5%	6.5%	
Jabil	JBL US	Not Rated	58.03	N/A	8,195	8.0	7.6	9.8%	3.2	2.6	44.3%	36.6%	3.9	3.5	0.6%	0.5%	
Average						13.2	10.9	16.1%	2.0	1.7	15.5%	15.6%	6.8	5.6	2.2%	2.6%	
Handset components - Displays																	
BOE Technology	000725 CH	Add	3.91	6.34	22,489	8.8	8.0	-10.2%	1.0	0.9	11.8%	11.9%	4.1	3.8	4.6%	5.0%	
Tianma Microelectronics	000050 CH	Add	9.27	15.72	3,425	13.7	12.7	0.5%	0.6	0.6	4.7%	4.8%	9.2	8.5	0.8%	0.9%	
LG Display	034220 KS	Reduce	17,500	18,000	4,953	8.9	7.2	N/A	0.5	0.4	5.2%	6.1%	2.1	1.9	0.0%	0.0%	
Average						10.5	9.3	-4.9%	0.7	0.6	7.2%	7.6%	5.1	4.7	1.8%	2.0%	
Handset components - Opticals																	
Cowell e Holdings	1415 HK	Add	7.13	12.05	758	10.6	8.1	22.7%	1.8	1.5	19.7%	20.3%	6.7	4.8	0.0%	0.0%	
Q Technology	1478 HK	Add	5.26	10.56	794	5.9	5.0	12.2%	1.0	0.8	17.6%	17.5%	2.2	1.5	0.0%	0.0%	
Sunny Optical Tech	2382 HK	Add	113.50	177.20	15,860	19.0	14.6	24.6%	4.2	3.4	25.0%	26.8%	10.2	7.8	1.1%	1.4%	
O-Film Tech	002456 CH	Not Rated	5.82	N/A	2,851	76.6	54.9	132.1%	2.2	2.1	-1.5%	-1.1%	23.8	15.6	0.0%	0.1%	
Will Semiconductor	603501 CH	Add	165.47	221.00	21,812	29.3	24.0	15.9%	6.8	5.4	27.0%	25.2%	20.3	16.6	0.3%	0.4%	
Largan Precision	3008 TT	Not Rated	1,600	N/A	7,249	11.5	12.0	0.5%	1.4	1.3	12.6%	11.6%	4.1	3.6	4.2%	4.0%	
LG Innotek	011070 KS	Add	367,000	360,000	6,871	9.9	9.0	N/A	2.1	1.7	23.5%	20.9%	4.6	3.9	0.7%	0.8%	
SEMCO	009150 KS	Add	159,500	195,000	9,424	10.2	9.3	N/A	1.6	1.3	16.6%	15.6%	4.8	3.9	0.9%	0.9%	
Average						21.6	17.1	34.7%	2.6	2.2	17.6%	17.1%	9.6	7.2	0.9%	0.9%	
Handset components - others																	
AAC Technologies	2018 HK	Reduce	16.30	13.54	2,509	13.8	10.0	11.9%	1.1	1.0	6.6%	10.2%	5.9	5.4	1.1%	1.5%	
Avary Holding Shenzhen	002938 CH	Not Rated	28.63	N/A	9,995	16.6	14.3	18.5%	2.5	2.2	15.1%	15.7%	9.0	7.7	1.5%	1.7%	
GoerTek Inc	002241 CH	Not Rated	36.91	N/A	18,962	22.0	17.3	26.9%	3.8	3.2	18.2%	19.4%	13.7	11.0	0.7%	0.8%	
Shenzhen Goodix Technology	603160 CH	Reduce	59.27	55.15	4,085	37.1	32.2	3.5%	2.8	2.5	8.1%	8.2%	41.1	34.5	0.7%	0.9%	
Sunwoda Electronics	300207 CH	Not Rated	27.25	N/A	7,044	35.9	20.0	46.4%	3.3	2.8	10.1%	14.4%	20.3	13.8	0.4%	0.6%	
Universal Scientific Industrial	601231 CH	Add	12.53	18.32	4,163	12.2	10.3	19.1%	1.3	1.0	13.6%	11.1%	5.3	3.0	4.9%	5.8%	
Delta Electronics Inc	2308 TT	Not Rated	225.00	N/A	19,740	19.7	16.3	15.4%	3.4	3.0	17.3%	19.0%	11.1	9.2	2.7%	3.1%	
Pegatron	4938 TT	Not Rated	65.30	N/A	5,886	10.7	9.3	3.8%	1.0	1.0	9.0%	10.2%	5.4	4.8	6.8%	7.3%	
Zhen Ding Technology	4958 TT	Not Rated	109.00	N/A	3,487	9.5	8.6	15.4%	1.1	1.0	11.6%	12.4%	4.2	3.8	5.0%	5.6%	
Average						20.5	16.0	18.6%	2.4	2.1	12.9%	13.8%	13.8	11.0	2.8%	3.2%	

SOURCES: CGS-CIMB RESEARCH, BLOOMBERG (PRICE AS AT 23 MAY 2022)

AAC Technologies (2018 HK, Reduce)

Share price: HK\$16.30, Target price: HK\$13.54, Market cap: US\$2.51bn

- 1Q22 results:** 1Q22 net profit was lacklustre, falling 61% yoy to Rmb205m, due to sustained margin pressure from ramping up the optics business, as well as low utilisation and production efficiency amid the Omicron outbreak in China.
 - FY22F outlook:** We think that standardised acoustics products should drive acoustics segment revenue. We expect optics revenue to double in FY22F, driven by strong shipment growth in handset lens and handset camera modules. However, camera module business development could narrow its optics segment profitability in FY22F.
 - Recommendation:** We reiterate our Reduce call on AAC Technologies due to its poor earnings outlook (-14% EPS in FY22F) amid a declining GPM trend as it ramps up output of low-margin products.
- Our target price of HK\$13.54 is based on 9x FY23F P/E, reflecting the weakened China smartphone market and declining EPS outlook.
- De-rating catalysts:** Sustained margin pressure in optics business.

Financial Summary	Dec-20A	Dec-21A	Dec-22F	Dec-23F	Dec-24F
Revenue (Rmbm)	17,140	17,667	20,760	22,785	24,436
Net Profit (Rmbm)	1,507	1,316	1,209	1,670	1,992
Normalised EPS (Rmb)	1.25	1.13	1.00	1.38	1.65
Normalised EPS Growth	(31.5%)	(9.5%)	(11.4%)	38.1%	19.2%
FD Normalised P/E (x)	11.08	12.24	13.80	9.99	8.38
Price To Sales (x)	0.97	0.94	0.80	0.73	0.68
DPS (Rmb)	0.26	0.18	0.15	0.21	0.24
Dividend Yield	1.91%	1.27%	1.08%	1.49%	1.77%
EV/EBITDA (x)	4.76	5.24	6.06	5.41	4.83
P/FCFE (x)	30.79	NA	29.22	16.85	9.86
Net Gearing	3.5%	16.7%	64.8%	57.5%	48.2%
P/BV (x)	0.79	0.77	1.06	0.99	0.91
ROE	7.4%	6.3%	6.4%	10.2%	11.3%
Normalised EPS/consensus EPS (x)			1.00	1.11	1.10



SOURCES: CGS-CIMB RESEARCH, COMPANY REPORTS

ASM Pacific Technology (522 HK, Add)

Share price: HK\$71.65, Target price: HK\$134.0, Market cap: US\$3.77bn

- **1Q22 results:** 1Q22 net profit jumped 60% yoy to HK\$832m due to strong revenue growth from automotive solutions, Advanced Packaging (AP), System-in-Packaging (SiP) tools and mini-LED placement tools despite ongoing supply chain challenges.

- **FY22F outlook:** The company has guided for a 2Q22F revenue growth of 6% yoy (+4.5% qoq) driven by AP. Automotive and advanced display tools from HPC, mini-LED, SiP for consumer and smartphone applications.

We estimate FY22F revenue to stay intact with 13% growth yoy, driven by AP tools demand from HPC, AI, 5G infrastructure and smartphone, semi and SMT automotive equipment, and mini-LED equipment.

We also expect FY22F GPM to be sustained at c.40% (40.6% in FY21), thanks to fast-growing sales of high-margin AP and automotive tools.

- **Recommendation:** We reiterate our Add call on ASMPT as we believe that it will continue to gain market share in AP tools and benefit from automotive electrification.

Our target price of HK\$134.0 is based on 3.5x FY22F P/BV, the mid-range of its 5-year average trading range, which should fairly reflect its leading market position in AP.

- **Share price catalysts:** Faster Omicron containment in China, easing of supply chain constraints and quicker AP adoption and more robust demand from automotive industry.

Financial Summary	Dec-20A	Dec-21A	Dec-22F	Dec-23F	Dec-24F
Revenue (HK\$m)	16,887	21,948	24,750	27,143	29,349
Operating EBITDA (HK\$m)	2,042	4,770	5,354	5,759	5,854
Net Profit (HK\$m)	1,622	3,169	3,597	3,965	4,063
Normalised EPS (HK\$)	2.49	7.84	8.76	9.65	9.89
Normalised EPS Growth	39%	215%	12%	10%	2%
FD Normalised P/E (x)	28.89	9.18	8.22	7.45	7.27
DPS (HK\$)	2.70	3.90	4.38	4.83	4.94
Dividend Yield	3.77%	5.44%	6.11%	6.74%	6.90%
EV/EBITDA (x)	13.06	5.49	4.70	4.14	3.86
P/FCFE (x)	10.87	41.57	12.84	10.32	9.93
Net Gearing	(10.7%)	(12.9%)	(18.9%)	(24.3%)	(28.2%)
P/BV (x)	2.23	1.93	1.87	1.66	1.50
ROE	8.2%	22.6%	23.2%	23.7%	21.7%
Normalised EPS/consensus EPS (x)			1.19	1.40	1.33



SOURCES: CGS-CIMB RESEARCH, COMPANY REPORTS

BOE Technology Group – A (000725 CH, Add)

Share price: Rmb3.91, Target price: Rmb6.34, Market cap: US\$22.5bn

- 1Q22 results:** 1Q22 net profit fell 17% yoy to Rmb4.4bn due to decrease in LCD TV panel price and poor demand for smartphone display, as well as supply chain constraints (chips shortage and production disruptions) amid the Omicron outbreak in China.
- FY22F outlook:** We expect AMOLED to break even in FY22F and become BOE's new earnings driver in the next few years, thanks to rising shipments for Apple and stable penetration growth among Chinese brands.

We believe that LCD display shipments should grow by c.5% yoy in FY22F, driven by increase of IoT products, automotive and TV display output. We also estimate LCD display GPM to only decline by 2.4% pts yoy to 24% in FY22F, supported by rising shipments of high-end automotive and IoT LCD displays.

- Recommendation:** We reiterate our Add call on BOE as we are positive on its AMOLED development and stable LCD display business.

Our target price of Rmb6.34 is based on 1.6x FY22F P/BV, on par with its 5-year average, reflecting the volatile LCD TV panel price and weakened demand for smartphone display.

- Share price catalysts:** Easing of Omicron in China and GPM recovery.

Financial Summary	Dec-20A	Dec-21A	Dec-22F	Dec-23F	Dec-24F
Revenue (Rmbm)	135,553	219,310	202,276	234,806	249,307
Net Profit (Rmbm)	5,080	25,831	17,105	18,853	20,627
Normalised EPS (Rmb)	0.15	0.72	0.44	0.49	0.54
Normalised EPS Growth	161%	394%	(39%)	10%	9%
FD Normalised P/E (x)	26.70	5.40	8.79	7.97	7.29
Price To Sales (x)	1.00	0.64	0.74	0.64	0.60
DPS (Rmb)	0.10	0.21	0.18	0.20	0.21
Dividend Yield	2.56%	5.37%	4.55%	5.02%	5.49%
EV/EBITDA (x)	9.12	3.35	4.21	3.86	3.62
P/FCFE (x)	19.56	33.63	7.63	6.93	5.99
Net Gearing	36.3%	12.5%	11.4%	9.3%	6.5%
P/BV (x)	1.32	1.05	0.99	0.92	0.86
ROE	5.1%	21.0%	11.6%	11.9%	12.2%
Normalised EPS/consensus EPS (x)			0.94	0.85	0.78



SOURCES: CGS-CIMB RESEARCH, COMPANY REPORTS

Cowell e Holdings (1415 HK, Add)

Share price: HK\$7.13, Target price: HK\$12.05, Market cap: US\$758m

- FY22F outlook:** We estimate Cowell flip-chip (FC) shipments to increase 8% yoy in FY22F as we believe it will have higher front-facing camera module (FCFF) allocation for the iPhone 14 series (iP14, to be launched in Sep 2022) and stable flip-chip rear-facing camera module (FCRF) output.

We expect FC ASP to grow by over 10% yoy in FY22F due to the front-facing camera spec upgrades in iP14.

On the other hand, we estimate that Cowell would start LiDAR product shipments in 3Q22F.

Cowell will increase c.40-50% of its capacity in FY22F and plans to upgrade its FC equipment for iP14 FCFF new designs and rising orders for FCRF.

- Recommendation:** We reiterate our Add call on Cowell as we believe it will continue to grow its FC market share in Apple's supply chain. Our target price of HK\$12.05 is based on 14x FY23F P/E.
- Share price catalysts:** Strong iPhone sales and fast revenue growth in LiDAR components.

Financial Summary	Dec-20A	Dec-21A	Dec-22F	Dec-23F	Dec-24F
Revenue (US\$m)	750	799	1,000	1,206	1,474
Net Profit (US\$m)	42.4	49.8	71.4	93.2	121.2
Normalised EPS (US\$)	0.08	0.08	0.09	0.11	0.15
Normalised EPS Growth	54.1%	1.6%	4.7%	30.7%	30.0%
FD Normalised P/E (x)	11.30	11.26	10.76	8.23	6.33
Price To Sales (x)	1.01	0.95	0.76	0.63	0.51
DPS (US\$)	0.12	0.00	0.00	0.00	0.00
Dividend Yield	13.2%	0.0%	0.0%	0.0%	0.0%
EV/EBITDA (x)	6.08	6.60	6.67	4.75	3.56
P/FCFE (x)	6.69	46.38	NA	16.39	9.16
Net Gearing	(35.7%)	(41.4%)	(11.3%)	(17.8%)	(27.4%)
P/BV (x)	3.03	2.46	1.83	1.50	1.22
ROE	22.8%	24.4%	19.7%	20.3%	21.6%
Normalised EPS/consensus EPS (x)			0.96	0.93	0.88



SOURCES: CGS-CIMB RESEARCH, COMPANY REPORTS

Lenovo Group (992 HK, Add)

Share price: HK\$7.73, Target price: HK\$13.78, Market cap: US\$11.9bn

- **2QFY22 results:** Lenovo's 3QFY22 net profit surged 62% yoy to US\$640m, driven by robust PC margin and turnaround of Server business.
- **FY23F outlook:** We believe PC revenue should remain resilient (flat revenue growth in FY23F, estimate volume to dip and ASP to rise), with sustained PTI margin improvement.

We expect Software & Services segment to maintain 25-30% revenue growth in FY23F/24F with stable PTI margin of c.20% amid rising PC as-a-Services trend.

We estimate server business to be profitable in FY23F driven by strong demand from 1) CSP and enterprises customers, 2) new Intel CPU platform, and 3) AI Edge server solution and storage service

- **Recommendation:** We maintain Add on Lenovo due to stronger PC margin and profitable server. Our target price of HK\$13.78 is based on 10.5x CY23F P/E, a 30% premium to global peers, reflecting strong S&S business growth and PC market share gain.
- **Share price catalysts:** Stable PC shipments and margin and strong growth in solution-based services.

Financial Summary	Mar-21A	Mar-22F	Mar-23F	Mar-24F
Revenue (US\$m)	60,742	72,674	75,670	79,821
Net Profit (US\$m)	1,178	1,968	2,116	2,312
Normalised EPS (US\$)	0.07	0.14	0.18	0.19
Normalised EPS Growth	29%	113%	22%	9%
FD Normalised P/E (x)	15.95	7.61	6.26	5.73
Price To Sales (x)	0.19	0.16	0.16	0.15
DPS (US\$)	0.039	0.057	0.062	0.067
Dividend Yield	4.01%	5.81%	6.25%	6.82%
EV/EBITDA (x)	4.52	2.68	1.87	1.23
P/FCFE (x)	7.14	4.40	4.43	4.25
Net Gearing	20.8%	(41.3%)	(71.1%)	(88.0%)
P/BV (x)	3.33	2.96	2.09	1.62
ROE	24.0%	46.0%	43.7%	35.5%
Normalised EPS/consensus EPS (x)		0.90	1.08	1.19



SOURCES: CGS-CIMB RESEARCH, COMPANY REPORTS

Lens Technology – A (300433 CH, Add)

Share price: Rmb10.16, Target price: Rmb16.40, Market cap: US\$7.60bn

- 1Q22 results:** Lens Tech's results were a net loss of Rmb776m in 1Q22 due to increased labour/R&D/administrative expenses for new production facilities and higher logistics costs and lower efficiency amid China's Omicron outbreak.

FY22F outlook: We expect FY22F revenue to rise 3% yoy, due to rising demand from automotive glass and modules, assembly and stable cover glass and casings demand from Apple amid weak demand for cover glass from Android customers and new materials for wearables.

We slash our FY22F/23F EPS forecasts by c.51%/50% on lower revenue growth and GPM assumptions.

- Recommendation:** We retain our Add call on Lens Tech as we find the share price which is trading at c.15x FY22F P/E, the lower range of its 3-year average, is attractive given short-term industry headwinds.

Our target price of Rmb16.40 is based on 22x FY23F P/E, its 3-year average.

- Share price catalysts:** Easing of Omicron in China and GPM recovery.

Financial Summary	Dec-20A	Dec-21A	Dec-22F	Dec-23F	Dec-24F
Revenue (Rmbm)	36,939	45,268	46,794	52,415	57,208
Net Profit (Rmbm)	4,896	2,070	3,299	4,079	4,766
Normalised EPS (Rmb)	1.15	0.60	0.66	0.82	0.96
Normalised EPS Growth	106%	(48%)	11%	24%	17%
FD Normalised P/E (x)	8.92	16.94	15.32	12.39	10.60
Price To Sales (x)	1.17	1.11	1.08	0.96	0.88
DPS (Rmb)	0.35	0.10	0.17	0.21	0.24
Dividend Yield	3.44%	0.98%	1.63%	2.02%	2.36%
EV/EBITDA (x)	4.83	11.70	9.00	7.65	6.67
P/FCFE (x)	113.2	NA	NA	NA	25.1
Net Gearing	4.9%	19.3%	18.7%	16.2%	11.6%
P/BV (x)	1.06	1.19	1.11	1.05	0.98
ROE	15.2%	7.0%	7.5%	8.7%	9.5%
Normalised EPS/consensus EPS (x)			1.10	1.02	1.09



SOURCES: CGS-CIMB RESEARCH, COMPANY REPORTS

Q Technology (1478 HK, Add)

Share price: HK\$5.26, Target price: HK\$10.56, Market cap: US\$794m

- FY22F outlook:** We estimate FY22F HCM shipments to grow 13% yoy (management guides 10%+ yoy) on strong orders from Samsung and stable demand from Vivo/Oppo/Honor. We expect HCM GPM to decline to 8.5% in FY22F due to increased competition but ASP to grow 8%, driven by wider adoption of high-resolution lens (64MP/108MP), large chip size, big aperture and OIS features.

We expect non-handset camera modules to achieve fast growth and become the company new growth driver in FY22-23F due to new projects wins for automotive and new products launches for AR glass customers.

- Recommendation:** We maintain Add on Q Technology as we believe its earnings will recover in FY23F on better product mix in HCM and higher contribution from auto/IoT/AR camera modules. Our target price of \$10.56 is based on 10x FY23F P/E, a 30% discount to its peers, reflecting its smaller handset lens and automotive segment contributions.
- Share price catalysts:** Strong recovery in HCM GPM, improved utilisation in its India factory and faster ramp-up in auto/IoT/AR camera modules.

Financial Summary	Dec-20A	Dec-21A	Dec-22F	Dec-23F	Dec-24F
Revenue (Rmbm)	17,400	18,663	22,815	24,864	27,234
Net Profit (Rmbm)	840	863	895	1,044	1,231
Normalised EPS (Rmb)	0.73	0.75	0.76	0.88	1.04
Normalised EPS Growth	48.4%	2.8%	1.1%	16.6%	17.9%
FD Normalised P/E (x)	6.16	5.98	5.92	5.07	4.30
Price To Sales (x)	0.30	0.28	0.23	0.21	0.19
DPS (Rmb)	0.042	-	-	-	-
Dividend Yield	0.94%	0.00%	0.00%	0.00%	0.00%
EV/EBITDA (x)	2.74	2.94	2.33	1.66	1.00
P/FCFE (x)	2.56	17.66	7.04	6.29	5.13
Net Gearing	(26.1%)	(16.9%)	(23.7%)	(31.6%)	(38.9%)
P/BV (x)	1.38	1.12	0.96	0.82	0.69
ROE	25.6%	20.8%	17.6%	17.5%	17.5%
Normalised EPS/consensus EPS (x)			1.13	0.98	0.92



SOURCES: CGS-CIMB RESEARCH, COMPANY REPORTS

SMIC (981 HK, Add)

Share price: HK\$16.82, Target price: HK\$23.9, Market cap: US\$25.3bn

- FY22F outlook:** We expect SMIC's wafer shipments to grow 22% yoy in FY22F (+18% yoy in FY21) amid strong demand from electric vehicles, IoT, mid-to-high end analogue, MCU and power management applications. However, smartphone (CIS, TDDI and fingerprint ICs) and consumer electronics demand should slow down.

Given that we believe overall foundry supply will improve in 2H22F, we expect wafer ASP to peak in 2Q22F before softening in 2H22F. We estimate wafer ASP will grow by 9% in FY22F but fall 5% FY23F amid an over- supply.

Although we expect higher depreciation costs of US\$2.2bn in FY22F (US\$1.87bn in FY21), we estimate that GPM will expand further to 33.8% in FY22F (33.1%/35.0% in 3Q/4Q21) due to wafer price hikes and high utilisation rates.

- Recommendation:** We maintain Add as we think SMIC will continue to benefit from strong domestic demand for mature process nodes. Our target price of HK\$27.30 is based on 1.6x FY22F P/BV, +1 s.d. of its 3-year average, to reflect the prolonged US entity list restriction that limits its advanced process technology development, as well as the potential risk of wafer price declines
- Share price catalysts:** Removal of export restriction by the US government and accelerated FinFET technology development.

Financial Summary	Dec-21A	Dec-22F	Dec-23F	Dec-24F
Revenue (US\$m)	5,443	7,325	9,089	9,492
Net Profit (US\$m)	1,701	1,734	1,759	1,681
Normalised EPS (US\$)	0.19	0.22	0.22	0.21
Normalised EPS Growth	65.1%	17.9%	1.4%	(4.4%)
FD Normalised P/E (x)	11.58	9.82	9.68	10.13
Price To Sales (x)	3.11	2.31	1.86	1.78
DPS (US\$)	-	-	-	-
Dividend Yield	0%	0%	0%	0%
EV/EBITDA (x)	6.32	5.40	4.91	4.90
P/FCFE (x)	NA	NA	15.89	12.58
Net Gearing	(27.2%)	(18.6%)	(21.4%)	(24.1%)
P/BV (x)	0.99	0.97	0.93	0.89
ROE	9.2%	10.0%	9.9%	9.0%
Normalised EPS/consensus EPS (x)		1.08	1.26	1.13



SOURCES: CGS-CIMB RESEARCH, COMPANY REPORTS

Sunny Optical Technology (2382 HK, Add)

Share price: HK\$113.50, Target price: HK\$177.20, Market cap: US\$15.9bn

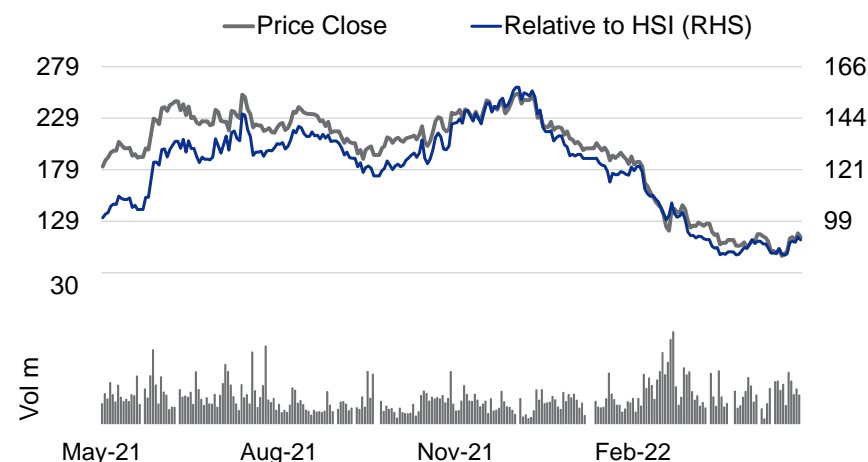
- FY22F outlook:** We expect handset camera module (HCM) shipment to grow 10% yoy in FY22F, underpinned by rising shipments of high-end products to Samsung and given the stable demand for sophisticated products from Xiaomi and Oppo. We expect HCM GPM to stay healthy at c.13% in FY22F (13.7% in FY21), supported by a better product mix (higher contribution from dual OIS, large image size, periscope camera modules) and an increase in automation.

We expect handset lens sets (HLS) shipment to slowly grow 8% yoy due to keener competition, although Sunny could see fast shipment growth for Apple's devices. We also expect HLS GPM to stay below 40% in FY22F due to a weaker product mix and more intense competition.

We believe vehicle lens sets (VLS) shipment to increase by 30% yoy in FY22F due to strong market demand, thanks to rapid ADAS development and fast shipment growth for Chinese EV makers.

- Recommendation:** We reiterate our Add call on Sunny Optical as we believe Sunny will continue to benefit from the fast growth in automotive cameras and market share gains in Apple supply chain. Our target price HK\$177.20, still based on 22x FY23F P/E, its 5-year average.
- Share price catalysts:** HLS shipments for Apple and strong growth in VLS shipments.

Financial Summary	Dec-20A	Dec-21A	Dec-22F	Dec-23F	Dec-24F
Revenue (Rmbm)	38,002	37,497	43,859	56,214	71,178
Net Profit (Rmbm)	4,871	4,969	5,552	7,215	9,539
Normalised EPS (Rmb)	4.46	4.55	5.06	6.58	8.70
Normalised EPS Growth	18.5%	2.1%	11.1%	30.0%	32.2%
FD Normalised P/E (x)	21.61	21.15	19.03	14.64	11.07
Price To Sales (x)	2.77	2.80	2.41	1.88	1.48
DPS (Rmb)	0.89	0.91	1.01	1.32	1.74
Dividend Yield	0.92%	0.95%	1.05%	1.37%	1.81%
EV/EBITDA (x)	14.67	13.25	10.74	8.23	6.09
P/FCFE (x)	49.16	27.29	19.52	15.71	11.87
Net Gearing	(33.6%)	(46.3%)	(56.7%)	(62.6%)	(68.1%)
P/BV (x)	6.09	4.91	4.23	3.39	2.69
ROE	33.4%	26.8%	25.0%	26.8%	28.3%
Normalised EPS/consensus EPS (x)			1.02	1.08	1.21



SOURCES: CGS-CIMB RESEARCH, COMPANY REPORTS

Tianma Microelectronics – A (000050 CH, Add)

Share price: Rmb9.27, Target price: Rmb15.72, Market cap: US\$3.43bn

- 1Q22 results:** Tianma turned a net profit of Rmb79m in 1Q22 (1Q21 net loss: Rmb117m; 4Q21 net profit: Rmb132m) on the back of weak demand from smartphone customers and supply chain constraints (chip shortages and products disruptions).

FY22F outlook: We expect FY22F revenue to rise by c.6% yoy, driven by robust professional display demand, especially in auto displays, and higher OLED shipments.

We expect shipments of OLED displays to reach 30m units (+50% yoy) for wearables and smartphones in FY22F, given mass production in Xiamen fab but OLED should remain unprofitable in FY22F due to low utilisation at Xiamen fab.

- Recommendation:** We retain our Add call on Tianma as we believe that it will be a key beneficiary of the growing auto display market, thanks to its strong customer base.

Our target price of Rmb15.72 is based on 1.2x FY22F P/BV, -1 s.d. of its 3-year average, reflecting the weak smartphone sector and sustained supply chain disruptions.

- Share price catalysts:** Customers' smartphone shipments recovery, stable LTPS GPM and strong automotive display shipment growth.

Financial Summary	Dec-20A	Dec-21A	Dec-22F	Dec-23F	Dec-24F
Revenue (Rmbm)	29,233	31,829	33,682	38,430	42,975
Net Profit (Rmbm)	1,475	1,542	1,665	1,797	1,984
Normalised EPS (Rmb)	0.85	0.79	0.68	0.73	0.81
Normalised EPS Growth	47.1%	(7.2%)	(14.3%)	7.9%	10.4%
FD Normalised P/E (x)	10.88	11.73	13.68	12.68	11.48
Price To Sales (x)	0.69	0.72	0.68	0.59	0.53
DPS (Rmb)	0.070	0.070	0.076	0.082	0.090
Dividend Yield	0.76%	0.76%	0.82%	0.88%	0.97%
EV/EBITDA (x)	8.03	9.04	9.41	8.53	8.10
P/FCFE (x)	NA	7.12	NA	15.19	11.88
Net Gearing	67.1%	74.1%	79.9%	80.4%	79.5%
P/BV (x)	0.68	0.65	0.62	0.60	0.57
ROE	6.17%	5.68%	4.64%	4.79%	5.09%
Normalised EPS/consensus EPS (x)			1.10	1.02	1.00



SOURCES: CGS-CIMB RESEARCH, COMPANY REPORTS

Universal Scientific Industrial – A (601231 CH, Add)

Share price: Rmb12.53, Target price: Rmb18.32, Market cap: US\$4.16bn

- **1Q22 results:** 1Q22 net profit rose 79% yoy to Rmb 439m due to strong SiP demand from Apple and EMS demand from automotive electronics.

- **FY22F outlook:** We expect over 20% revenue growth in 2Q22F on improving production in May/June 22.

We expect the company to achieve revenue growth of c.17% yoy in FY22F, mainly driven by EMS demand from automotive applications and SiP solutions, thanks to ongoing momentum in automotive electronics (power modules, BMS, heat dissipation modules, inverters, etc.) and stable market share in the supply chain for Apple's devices.

We expect GPM to expand by 50bp yoy to 10.1% in FY22F, driven mainly by high-margin auto electronics and industrials in EMS.

- **Recommendation:** We reiterate our Add call on USI due to its solid net profit growth (+20% FY22F EPS) and cheap valuation (11x FY22F P/E).

Our target price of Rmb18.32 is based on 15x FY23F P/E, on par with tier-1 A-share peers in the Apple supply chain, reflecting short-term industry headwinds from the disruption caused by the Omicron outbreak.

- **Share price catalysts:** Strong demand from automotive electronics and wider adoption of SiP in handsets and wearables.

Financial Summary	Dec-20A	Dec-21A	Dec-22F	Dec-23F	Dec-24F
Revenue (Rmbm)	47,696	55,300	64,688	75,197	87,262
Net Profit (Rmbm)	1,739	1,858	2,264	2,699	3,246
Normalised EPS (Rmb)	0.80	0.85	1.02	1.22	1.47
Normalised EPS Growth	37.9%	6.8%	19.9%	19.2%	20.3%
FD Normalised P/E (x)	15.68	14.78	12.23	10.26	8.53
Price To Sales (x)	0.57	0.49	0.43	0.37	0.32
DPS (Rmb)	0.50	0.50	0.61	0.73	0.88
Dividend Yield	3.99%	3.99%	4.91%	5.85%	7.03%
EV/EBITDA (x)	9.85	7.92	5.50	3.12	1.21
P/FCFE (x)	36.18	NA	3.37	3.26	3.14
Net Gearing	(26.0%)	(19.5%)	(44.9%)	(56.5%)	(62.9%)
P/BV (x)	2.26	2.12	1.34	0.99	0.78
ROE	15.6%	14.8%	13.4%	11.1%	10.2%
Normalised EPS/consensus EPS (x)			1.06	1.07	1.10



SOURCES: CGS-CIMB RESEARCH, COMPANY REPORTS

Will Semiconductor – A (603501 CH, Add)

Share price: Rmb165.50, Target price: Rmb221.0, Market cap: US\$21.8bn

- **1Q22 results:** 1Q22 net profit fell 14% yoy to Rmb896m due to the sluggish China smartphone market and supply chain constraints amid the Omicron outbreak in China.

- **FY22F outlook:** We expect overall revenue to rise c.22% yoy in FY22F, driven by auto CIS, TDDI and recovery of handset CIS.

We expect TDDI business revenue to rise over 50% in FY22F with a stable GPM of c.55% due to production for BOE and Tianma commencing in 4Q21, and mass production of Display Driver IC (DDIC) for OLED displays.

We expect overall GPM to stay at c.34% in FY22F, supported by better product mix in handset CIS and higher contribution from auto CIS and TDDI.

- **Recommendation:** We reiterate our Add call on Will Semi due to sustainable market share gains in handset and auto CIS, thanks to new product launches and significant semi-localisation trend.

Our target price of Rmb221.0 is based on 32x FY23F P/E to reflect the weakened smartphone demand and supply chain disruption in China caused by Omicron infections.

- **Share price catalysts:** Omicron containment in China, sustained auto CIS market share gains and stable GPM in CIS and TDDI businesses.

Financial Summary	Dec-20A	Dec-21A	Dec-22F	Dec-23F	Dec-24F
Revenue (Rmbm)	19,824	24,104	29,080	33,023	37,551
Net Profit (Rmbm)	2,706	4,476	4,940	6,049	7,144
Normalised EPS (Rmb)	3.13	5.11	5.64	6.91	8.16
Normalised EPS Growth	481%	63%	10%	22%	18%
FD Normalised P/E (x)	52.81	32.39	29.34	23.95	20.28
Price To Sales (x)	7.21	6.01	4.98	4.39	3.86
DPS (Rmb)	0.32	0.52	0.57	0.70	0.83
Dividend Yield	0.19%	0.31%	0.35%	0.42%	0.50%
EV/EBITDA (x)	38.33	25.36	20.83	16.68	13.75
P/FCFE (x)	72.05	74.34	40.68	28.00	23.71
Net Gearing	6.5%	12.1%	(3.6%)	(18.8%)	(30.1%)
P/BV (x)	12.72	8.95	6.84	5.38	4.30
ROE	28.2%	32.6%	26.4%	25.2%	23.6%
Normalised EPS/consensus EPS (x)			0.91	0.87	0.84



SOURCES: CGS-CIMB RESEARCH, COMPANY REPORTS

Xiaomi Corporation (1810 HK, Add)

Share price: HK\$11.50, Target price: HK\$19.84, Market cap: US\$36.6bn

- **1Q22 results:** 1Q22 adjusted net profit (non-IFRS) fell 53% yoy to Rmb2.86bn given the 22% decline in smartphone (SP) shipments and 3.0%-pts GPM erosion.
- **FY22F outlook:** We expect sequential SP sales improvement qoq for the rest of FY22F due to easing Omicron cases in China and improving production and logistic issues.

We expect Xiaomi FY22F SP shipment to be flat at 190m units, as we expect stronger shipments with c.50m units in 3Q/4Q22F (c.+14%/14% yoy) due to containment of the Omicron outbreak in China, improvement of production and logistic disruptions, and stable overseas shipments (India, the EU and LATAM).

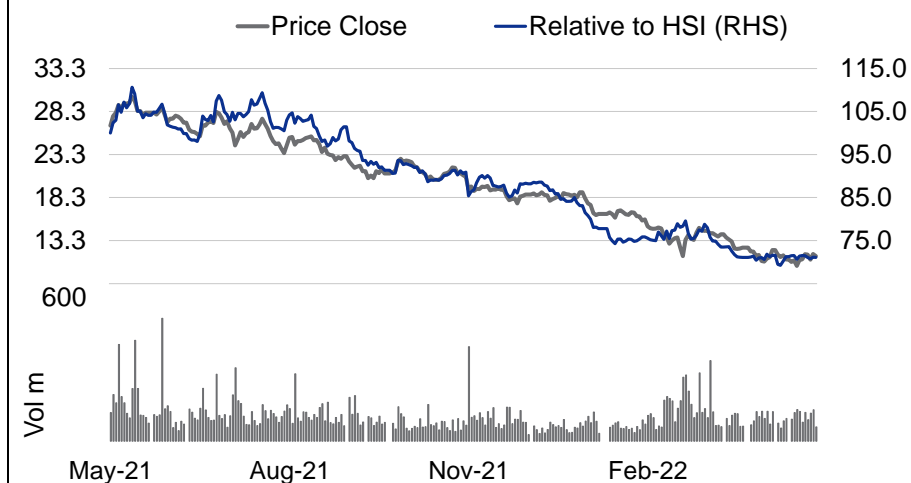
We expect IoT revenue to maintain a solid growth of 14% yoy in FY22F, driven by smart TVs, smartwatches and tablets, underpinned by overseas distribution channel expansion, especially in the EU and Southeast Asia.

- **Recommendation:** We reiterate our Add call on Xiaomi as we believe that it will continue to gain global SP market share and rising premium phone sales due to continuous domestic and overseas channel expansion.

Our target price of HK\$19.84 is based on 20x FY23F P/E, on par with its closest China Internet peers.

- **Share price catalysts:** SP shipments resuming growth and stable monetisation in its MIUI ecosystem.

Financial Summary	Dec-20A	Dec-21A	Dec-22F	Dec-23F	Dec-24F
Revenue (Rmbm)	245,866	328,309	359,050	437,922	516,094
Net Profit (Rmbm)	20,355	19,339	17,577	23,239	25,860
Normalised EPS (Rmb)	0.54	0.88	0.72	0.85	0.95
Normalised EPS Growth	11.7%	63.1%	(18.7%)	17.7%	12.6%
FD Normalised P/E (x)	18.42	11.09	13.86	11.79	10.47
Price To Sales (x)	0.95	0.74	0.68	0.56	0.47
DPS (Rmb)	-	-	-	-	-
Dividend Yield	0%	0%	0%	0%	0%
EV/EBITDA (x)	15.21	9.03	9.82	7.28	5.38
P/FCFE (x)	109.2	NA	15.8	12.2	10.5
Net Gearing	(54.8%)	(35.5%)	(41.9%)	(45.7%)	(51.7%)
P/BV (x)	1.99	1.77	1.64	1.41	1.26
ROE	12.7%	16.9%	12.6%	13.2%	13.0%
Normalised EPS/consensus EPS (x)			1.09	1.00	0.97



SOURCES: CGS-CIMB RESEARCH, COMPANY REPORTS

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632 companies under coverage for quarter ended on 31 March 2022		
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Add	70.3%	0.8%
Hold	22.0%	0.0%
Reduce	7.8%	0.2%

Corporate Governance Report of Thai Listed Companies (CGR). CG Rating by the Thai Institute of Directors Association (Thai IOD) in 2021, Anti-Corruption 2021

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- Hold** The stock's total return is expected to be between 0% and positive 10% over the next 12 months.
- Reduce** The stock's total return is expected to fall below 0% or more over the next 12 months.

The total expected return of a stock is defined as the sum of the: (i) percentage difference between the target price and the current price and (ii) the forward net dividend yields of the stock. Stock price targets have an investment horizon of 12 months.

Sector Ratings

Definition:

- Overweight** An Overweight rating means stocks in the sector have, on a market cap-weighted basis, a positive absolute recommendation.
- Neutral** A Neutral rating means stocks in the sector have, on a market cap-weighted basis, a neutral absolute recommendation.
- Underweight** An Underweight rating means stocks in the sector have, on a market cap-weighted basis, a negative absolute recommendation.

Country Ratings

Definition:

- Overweight** An Overweight rating means investors should be positioned with an above-market weight in this country relative to benchmark.
- Neutral** A Neutral rating means investors should be positioned with a neutral weight in this country relative to benchmark.
- Underweight** An Underweight rating means investors should be positioned with a below-market weight in this country relative to benchmark.