

China Technology

Global SPE 2Q23 Wrap: China demand remains resilient; Awaiting upcycle after 2023 slowdown

Major global SPE (ASML/AMAT/LAM/KLA/TEL) reported sales YoY decline in 2Q (except ASML) on fabs' spending reduction given slow inventory digestion and weak demand. Looking into 3Q23E, most SPE names guided flattish or slight revenue YoY growth driven by trailing-edge, specialty and mild semi recovery, while most expected WFE market to decline 20-30% YoY in 2023. Looking into 3Q/4Q, China's demand from memory, mature and specialty technologies remain the sweet spots driving upside amid export restrictions. Despite near-term macro headwinds, we are positive on AI demand to drive WFE market in the long term and China's localization to boost domestic demand, benefitting SPE names including Naura (002371 CH) and AMEC (688012 CH).

- 2Q23 sales declined YoY; expect mild recovery in 3Q.** Most SPE's 2Q revenue declined YoY on fabs' cut in spending due to slow inventory digestion and demand weakness, except ASML delivering 27% YoY growth thanks to strong DUV demand. Looking into 3Q, most names (except TEL) guided flattish or YoY improvement driven by mature & specialty demand, China-related and selective downstream recovery. In addition, most SPE guided better GPM on improving product mix, except ASML expecting GPM contraction given higher DUV mix.
- China memory, mature and specialty demand are the sweet spots given US export restrictions.** Most SPE achieved encouraging 2Q sales growth with rising sales mix from Chinese customers, driven by Chinese memory, trailing edge and specialty technologies demand after US export restrictions since Oct. 2022. Most SPE names guided positive 3Q23 outlook on China demand, thanks to solid demand from mature nodes in industrial, IoT, auto, telecom and energy transition markets. In addition, memory demand will remain resilient in China in 3Q23E, as AMAT guided QoQ growth in DRAM from Chinese customers and LAM expected WFE spending upside partly from Chinese memory markets.
- WFE market outlook: a sluggish 2023 followed by strong rebound in 2024.** Most SPE forecasted sales decline in WFE market in 2023 and memory WFE will be worse than broad market. LAM/TEL/KLA expected global WFE market to decline 20-30% YoY in 2023, and LAM/KLA/AMAT expected memory WFE will underperform with mid-40% YoY decline. In memory space, LAM/KLA remained cautious on memory UTR (both DRAM&NAND), while AMAT expected strong DRAM market driven by trailing edge shipment. That said, after 2023 slowdown, SEMI expected WFE market to rebound 15% YoY (vs. -15% in FY23E), driven by end of inventory correction and stronger demand in HPC and memory segments.
- AI to drive WFE upside in the long term.** Most SPE expects AI demand will not drive meaningful upside in WFE in the short term but will boost demand in the long term. KLA expected packaging biz will outperform the market (flattish vs market down 15-20%) driven by AI and accelerated computing applications. LAM expects packaging SAM to double in the next five years thanks to AI acceleration. AMAT is on track to double its packaging biz over the next 3-5 years driven by HBM memory and advanced packaging demand.

Valuation Table

Name	Ticker	Mkt Cap (Rmb bn)	Price (LC)	P/E (x)		P/B (x)		ROE
				FY23E	FY24E	FY23E	FY23E	
Naura	002371 CH	133.5	252.0	37.9	28.5	5.9	16.0	
AMEC	688012 CH	88.9	143.8	54.3	48.2	5.2	9.6	

Source: Company data, CMBIGM estimates

China Technology Sector

Alex NG
 (852) 3900 0881
 alexng@cmbi.com.hk

Hanqing LI
 lihanqing@cmbi.com.hk

Figure 1: Global SPE: 2Q23 results and 3Q23 guidance

Company	1Q22	2Q22	3Q22	4Q22	1Q23	2Q23	3Q23E	FY23E	Outlook
	A	A	A	A	A	A	Guidance	Guidance	
YoY Growth									
ASML	-19%	35%	10%	29%	91%	27%	12.5% to 21.1%	Towards 30%	* 3Q: Shift in EUV demand timing driven by fab readiness; DUV demand higher than supply * 2023: DUV to grow 50% YoY (vs. prior 30%); EUV to grow 25% YoY (vs. prior 40%); flat installed Base; Total growth of 30% (vs. prior 25%)
AMAT	12%	5%	10%	7%	6%	-1%	-4.9% to 7.5%	-	* 2Q: strength in ICAPS largely offset weakness in leading-edge foundry logic and NAND * 3Q: YoY growth in DRAM on Chinese customers; Strength in both ICAPS and DRAM
LAM	-4%	14%	9%	4%	-27%	-17%	-3.3% to 15.4%	-	* 2Q: System sales declined YoY; Strong foundry in leading-edge; Robust mature specialty nodes spending; * 2Q: Strong momentum in AP, microprocessors, analog, image sensors and power * 3Q: NAND to remain at low level; didn't suggest CSBG sales will pick up; Chinese new customers sales contribution in 2H * 2023: Raised WFE spending to mid US\$70bn range (vs. prior low-to-mid US\$70bn); Memory WFE to decline mid-40% YoY
KLA	27%	29%	31%	27%	6%	-5%	-5.5% to 5.1%	-	* 3Q: Foundry&logic/ Memory mix of 70%/ 30%; within memory, DRAM/NAND mix of 90%/10% * 3Q: Strong process control systems/auto/legacy design nodes demand * 2023: Maintained WFE spending of ~20% YoY decline; memory decline by ~40% YoY; foundry/logic drop by ~10% YoY;
TEL	29%	5%	48%	-8%	-1%	-17%	-44%	-23%	* 2Q: decline on customers' reduced CAPEX; China sales rise to 39% on active mature investment * 3Q: Chinese customers mature investment acceleration; demand recovery for PC and smartphones; power for EVs grow steadily * 2023: WFE spending unchanged (US\$70bn-75bn); WFE market down 25-30% YoY
China YoY									
ASML	66%	-17%	55%	-44%	-45%	225%	-	-	* China mix of 24% in 2Q vs. 8% in 1Q * China is over 20% in backlog driving up system sales in next period * Sweet spot in China mid-critical and mature nodes in energy transition, IoT in industrial, telecommunication, infrastructure and battery technology * Cannot ship most adv. immersion tools to China but mid-critical immersion is allowed
AMAT	16%	-20%	-35%	-42%	-34%	-4%	-	-	* China mix of 27% in 2Q vs. 21% in 1Q * QoQ growth in DRAM in 3Q related to confirming technologies to ship to Chinese customers * US\$1.7bn in July from China (~27% of totals revenue), from almost all domestic Chinese customers
LAM	5%	-6%	-5%	17%	-34%	-43%	-	-	* China mix in 2Q was 26% vs. 22% in 1Q * WFE spending in 2023 with upside from domestic China-related between memory and specialty technologies and trailing edge * Export restriction impact on biz of US\$2-2.5bn
KLA	101%	18%	23%	25%	-11%	-1%	-	-	* China mix of 30.2% in 2Q vs. 26.1% in 1Q * competitive offerings in China are based on portfolio of products * Most of business we have in China is legacy; feel good about ability to compete against competitors in China
TEL	-	-48%	20%	-42%	-9%	42%	-	-	* China mix in 2Q was 39.3% vs. 24.5% in 1Q * China mature growth is already stable, with less volatility than leading edge due to IoT; * Chinese customers amount will continue to expand little by little
China QoQ									
ASML	2%	-47%	54%	-33%	0%	215%	-	-	
AMAT	7%	-16%	-26%	-14%	23%	23%	-	-	
LAM	18%	13%	6%	-17%	-34%	-1%	-	-	
KLA	30%	2%	16%	-19%	-7%	12%	-	-	
TEL	-12%	-31%	67%	-42%	36%	8%	-	-	

Source: Company announcement, Bloomberg, CMBIGM

Figure 2: Global SPE: 2Q23 results and 3Q23 guidance

Company	1Q22	2Q22	3Q22	4Q22	1Q23	2Q23	3Q23E	FY23E	Outlook
	A	A	A	A	A	A	Guidance	Guidance	
Gross Margin									
ASML	49.0%	49.1%	51.8%	51.5%	50.6%	51.3%	~50%	Slight improvement	* 2Q: good GPM thanks to more immersion systems sales * 3Q: little below 2Q GPM due to deep UV mix
AMAT	47.0%	46.2%	46.0%	46.8%	46.8%	46.4%	~47%	N/A	* 3Q: improvement due to a rich mix
LAM	44.7%	45.2%	46.0%	45.1%	44.0%	45.7%	45.5% -47.5%	N/A	* 2Q: improvement on cost and efficiency improvement and favorable product mix * 3Q: driven by operational efforts and beneficial mix
KLA	62.9%	62.4%	63.4%	61.0%	60.8%	61.2%	60%-62%	~61%	* 2Q: improvement driven by high margin products * 3Q: product mix and cost components consistent with 2Q
TEL	45.3%	42.3%	46.3%	43.6%	45.1%	41.4%		43.6%	* 2Q: due to decrease in sales
OPM									
ASML	22.2%	30.4%	33.5%	33.0%	32.7%	32.8%	-	-	* 2Q: R&D and SG&A expenses came in as guided * 3Q: R&D flat QoQ; SG&A +1.4% YoY
AMAT	30.6%	30.0%	29.8%	29.5%	29.1%	28.3%	-	-	* 3Q: operating expenses +0.4% QoQ
LAM	29.4%	31.5%	33.3%	32.1%	28.3%	27.3%	27-29%	-	* 2Q: over 2/3 focus on R&D as product differentiation expansion to ensure competitiveness * 2H: purposely spending a little more on R&D
KLA	41.7%	41.8%	44.1%	42.4%	38.8%	38.1%	N/A	-	* 2Q: expense higher than guidance on adjustments to variable compensation * 3Q: opex to remain ~ US\$535mn (-1.5% QoQ) in 2H given current
TEL	29.8%	24.8%	32.8%	24.5%	27.4%	21.0%	-	23.1%	* 2Q: due to decrease in sales
CAPEX (US\$m)									
ASML	278	249	359	497	588	593	-	-	* 2024 dependent on how things develop; actively improve capacity to meet future customer demand
AMAT	210	210	223	287	255	255	-	-	* Current spending is 18% of revenue * Put about 66% of spending, 2/3 towards R&D and fully focus on the roadmap
LAM	145	126	140	163	119	79	-	-	* 2Q: capex down 33.6% QoQ * Spending centers on product development and global lab infrastructure
KLA	100	73	84	94	85	79	-	-	* Optical inspection remains strong and elevated and working hard to increase capacity to meet demand
TEL (JPY bn)	15	18	17	13	26	39	-	124	* 2Q: increase due to R&D construction in Miyagi commencement for business expansion and acquisition of equipment * 3Q: continue aggressive R&D and capex investment for sustainable growth

Source: Company announcement, Bloomberg, CMBIGM

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CMB International Global Markets Limited

Address: 45/F, Champion Tower, 3 Garden Road, Hong Kong, Tel: (852) 3900 0888 Fax: (852) 3900 0800

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