

# China Technology

**OUTPERFORM  
(Maintain)**

## Implications of ASML/LAM Research 3Q23 results

ASML and LAM posted in-line 3Q23 results, and a higher China sales mix is the bright spot, leading to better profitability. Looking ahead, both believe that memory market recovery remains slow given low UTR and on-going inventory digestion, and cycle inflection visibility could be delayed to end-2023. However, both remain positive on China demand for capacity expansion of domestic mature & specialty nodes. Overall, we expect global SPE names to remain under pressure in the near term given order visibility and the margin pressure, but we are positive on domestic IDM/foundries' capacity expansion given the US's recent export restrictions, benefiting names like Naura (002371 CH) and AMEC (688012 CH).

- **ASML/LAM 3Q23 in line; higher China mix the bright spot. 1) ASML:** revenue declined 3.3% QoQ and up 15.5% YoY, in-line with guidance. Net system dropped 5% QoQ but installed base mgmt. sales climbed 7.7% QoQ. China mix climbed to 46% (vs. 24% in 2Q) driven by strong demand for mid-critical and mature nodes and higher order fill rate allowance (prior below 50%). GPM of 51.9% was above high-end of guidance thanks to a better product mix on immersion and one-off cost benefit. **2) LAM:** Revenue growth of 8.4% QoQ is within guidance. Foundry mix declined 11% due to timing of leading-edge investments. DRAM mix improved 14%. China mix reached 48% (vs. 26% in 2Q) on strong domestic demand. GPM of 47.9% exceeded high-end of guidance on product mix.
- **ASML/LAM 4Q revenue QoQ growth; 2025 another strong upcycle. 1) ASML:** 4Q revenue to grow 3% QoQ at midpoint and GPM of 50-51%. Looking ahead, mgmt. guided flattish sales in FY24E but strong growth in 2025 driven by AI, energy transition & electrification, industry upcycle and global fab expansion. **2) LAM:** 4Q revenue to grow 6.3% QoQ at mid-point and GPM of 46-48% on better client mix, but R&D costs will re-accelerate.
- **Positive on HBM/China demand/specialty tech.** ASML expected strong demand for DUV systems in China given domestic focus on mature and mid-critical nodes. China remains 20%+ in backlog. LAM expected strong DRAM spending, given HBM and Chinese demand for specialty technology, and China mature node investment remain sustainable in the long term.
- **Memory recovery is slow; cycle inflection visibility by end-2023.** Both ASML/Lam remain cautious on memory recovery as inventory digestion is ongoing. Specifically, Lam stated that memory UTR is still at a low level and customers are holding off on tool upgrade. In addition, ASML believes that logic is bottoming out and expects visible cycle inflection by end-2023.
- **No material impact on business from new export controls.** ASML states that the US's updated export controls have no material effect on its financial outlook in FY23E and shipments of mature and mid-critical nodes systems comply with regulations. Lam also expects no material impact on its business.

### Valuation Table

Name	Ticker	Mkt Cap (US\$ mn)	Price (LC)	P/E (x)		P/B (x)		ROE
				FY23E	FY24E	FY23E	FY23E	
SMIC	981 HK	21,275	30.0	22.1	21.8	1.06		3.8
Hua Hong Semi	1347 HK	4,277	19.5	12.3	13.8	0.79		10.5
Naura	002371 CH	17,867	243.13	36.1	27.8	5.7		15.9
AMEC	688012 CH	13,698	166.20	62.2	54.5	5.9		9.6

Source: Company data, CMBIGM estimates

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### Related Reports:

1. Implications of US's updated chip export restrictions to global/ domestic SPE/GPU companies - 18 Oct 2023 ([link](#))
2. Global SPE 2Q23 Wrap: China demand remains resilient; Awaiting upcycle after 2023 slowdown - 18 Sep 2023 ([link](#))
3. Implications of Dutch additional export control - 3 Jul 2023 ([link](#))
4. Implications of US's new chip export restrictions to China - 10 Oct 2022 ([link](#))
5. U.S. may broaden AI chips export restrictions - 14 Sep 2022 ([link](#))

## Key takeaways of ASML (ASML US, NR) 3Q23 results:

### 1. 3Q23 Results

- Revenue: EUR6.7bn, +15.5%/-3.3% YoY/QoQ, within previous guidance
- GPM: 51.9%, +0.1ppts/+0.6ppts YoY/QoQ, above previous guidance (~50%) driven by DUV product mix and some one-off cost effects
- OPM: 32.7%, -0.8ppts/-0.1ppts YoY/QoQ
- Net Income: EUR1.9bn, +11.3%/-2.5% YoY/QoQ
- Net booking: EUR2.6mn (-42% QoQ) including EUV of EUR0.5bn (-69% QoQ) due to cautious customers' delaying orders as the industry working through a cycle

### 2. 3Q23 sales breakdown

- Breakdown by Technology
  - ArFi: 48% of sales, vs 49% in 2Q23
  - EUV: 35% of sales, vs 37% in 2Q23
  - KrF: 10% of sales, vs 9% in 2Q23
  - ArF Dry: 4% of sales, vs 2% in 2Q23
  - I-line: 1% of sales, vs 1% in 2Q23
  - Metrology & Inspection: 2% of sales, vs 2% in 2Q23
- Breakdown by region
  - China: 46% of sales, vs 24% in 2Q23
  - South Korea: 20% of sales, vs 27% in 2Q23
  - Taiwan: 24% of sales, vs 34% in 2Q23
  - USA: 5% of sales, vs 10% in 2Q23
  - EMEA: 4% of sales, vs 2% in 2Q23
  - Rest of Asia: 1% of sales, vs 1% in 2Q23

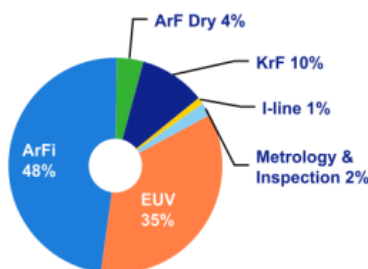
### 3. 4Q23 Guidance

- Revenue: EUR6.7-7.1bn, mid-point increase of 3.0% QoQ
- GPM: 50-51%
- R&D costs of ~EUR1,030mn, +13.7% YoY
- SG&A cost of ~EUR285mn, +1.8% YoY

### 4. Other highlights

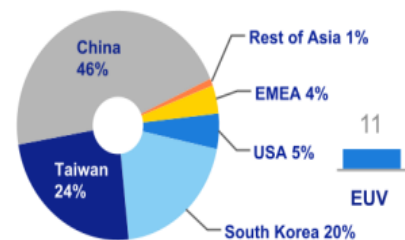
- China demand for DUV systems remains strong; systems for mature and mid-critical nodes to China comply with export control regulations; China remain 20%+ in backlog
- US updated export control has no material effect on financial outlook for 2023
- EUV revenue growth of ~25% YoY but installed base business down ~5% YoY in 2023
- Flattish revenue YoY in FY24E but strong 2025 driven by energy transition, electrification and AI demand, upcycle and global new fab expansion;
- Flattish or lower shipment of EUV in 2024 due to cost and transition year; 50% of 2025 demand is on new fabs for DUV and EUV
- No upturn yet in memory; logic is bottoming out; customer expect cycle inflection to be visible by end 2023

Figure 1: ASML: system sales by technology (3Q23)



Source: Company data, CMBIGM estimates

Figure 2: ASML: revenue by region (3Q23)



Source: Company data, CMBIGM estimates

## Key takeaways of Lam Research (LRCX US, NR) 3Q23 results:

### 1. 3Q23 Results

- Revenue: US\$3.48bn, +8.4% QoQ, within guidance
- GPM: 47.9%, +2.2ppts QoQ, above high-end of previous guidance (47.5%)
- OPM: 30.1%, +2.8ppts QoQ, above high-end of previous guidance (29%)
- Diluted EPS: US\$6.85, +14.5% QoQ, above high-end of guidance (US\$6.8)

### 2. 3Q23 sales breakdown

- Breakdown by system
  - Foundry: 36% of sales, vs 47% in 2Q23
  - NVM: 15% of sales, vs 18% in 2Q23
  - DRAM: 23% of sales, vs 9% in 2Q23
  - Logic/other: 26% of sales, vs 26% in 2Q23
- Breakdown by region
  - China: 48% of sales, vs 26% in 2Q23
  - Korea: 16% of sales, vs 24% in 2Q23
  - Taiwan: 7% of sales, vs 20% in 2Q23
  - Japan: 9% of sales, vs 10% in 2Q23
  - US: 8% of sales, vs 8% in 2Q23
  - Europe: 7% of sales, vs 8% in 2Q23
  - SEA: 5% of sales, vs 4% in 2Q23

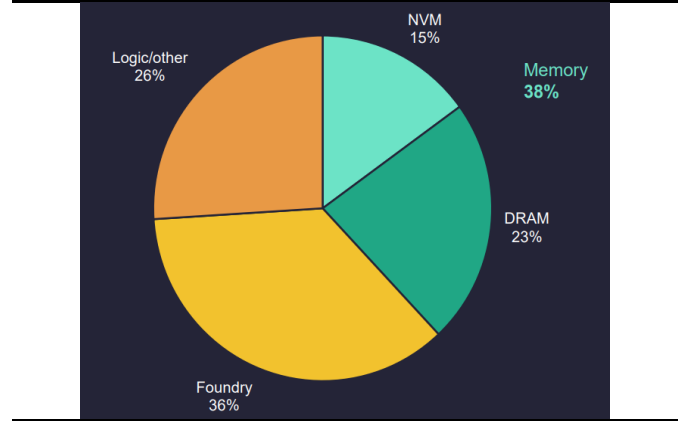
### 3. 4Q23 Guidance

- Revenue: US\$3.4-4.0bn, mid-point increase of 6.3% QoQ
- GPM: 46-48% / OPM: 28.5-30.5%
- EPS: US\$6.25-7.75

### 4. Other highlights

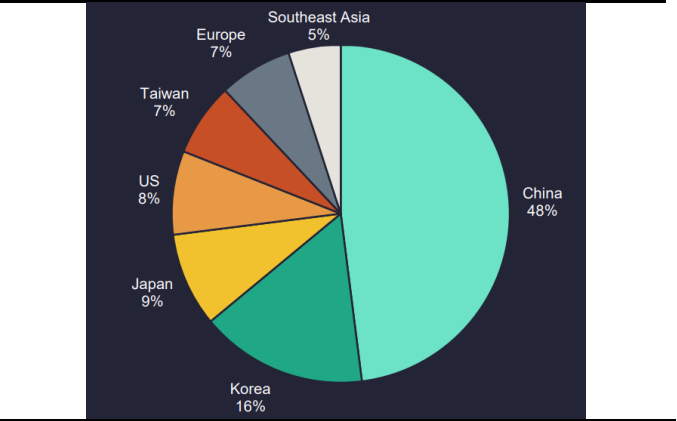
- Install-based business to see early benefits when memory investments recovery
- Expect China demand continue to be strong in 4Q but not as strong as 3Q
- Memory at low UTR and customers are holding off on upgrading tools until more inventory digestion
- Specialty technology the bright spot and business up YoY in 2023
- Favourable customer mix may not continue at the same level in 2024, affecting GPM
- DRAM business uptick driven by China demand and transition from DDR4 to DDR5 in new CPUs
- WFE spending in 2023 in US\$80bn range (vs. prior US\$70bn); hard to call the timing and pace of WFE recovery
- NAND pricing stabilized and bid demand increased to high teens (vs. high-single digits% YoY) driven by greater demand elasticity in per unit content from certain consumer markets
- DRAM spending modestly up driven by better trends in HBM demand and upside from China customers; HBM still in tighter supply and respond quicker to customers' urgent demand
- Foundry spending down slightly due to weakness in both leading edge and non-China mature node investments;
- China mature node investments remain sustainable in the long term
- No material impact on business from recently new US export restrictions

Figure 3: Lam: system revenue segment (3Q23)



Source: Company data, CMBIGM estimates

Figure 4: Lam: revenue by region (3Q23)



Source: Company data, CMBIGM estimates

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