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China Semiconductors

China Semicap: 2025 WFE Competitive dynamics in China


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We track the WFE competitive dynamics in China annually (2023, 2024); in this call we refresh the numbers for 2025. Overall localization ratio rose from 16% in 2024 to 21% in 2025; Deposition, Doping and Process Control made the best progress in growth. Lithography and Track remain the two sectors with the lowest localization ratios.

In our latest China WFE model update (report and model), we estimated that China's WFE self-sufficiency reached 21% in 2025 (Exhibit 2). Dry Etch and Deposition are still the two most important segments for local vendors, the localization ratio reached 31%/27% (Exhibit 3), supported by strong YoY growth at 37%/67% (Exhibit 4), respectively. The progress on Doping/Process Control was better than expected with 86%/63% YoY growth for local players, self-sufficiency reached 13/10%, above 10% for the first time. Lithography/Track still didn't make much progress with LSD self-sufficiency. Cleaning was growing surprisingly slow at only 8% YoY. Thermo Processing and CMP achieved decent YoY growth at 43%/33% respectively.

Among local players, AMEC/NAURA are gaining share in Deposition, and NAURA is expanding market presence in Doping (Exhibit 5). Comparing 2025 share to 2024, NAURA further expanded share in Deposition from 64% to 65%, and AMEC also expanded from 1% to 3%, while Piotech/ACMR slightly lost share with delay in revenue recognition. NAURA recognized doping revenue for the first year and is already the second-largest local player in the sector with 27% share. Within Dry Etch, AMEC/NAURA shares are stable at 47%/48%. The dynamics within other sectors remain largely unchanged.

Most global vendors' growth in China slowed in 2025 (Exhibit 11), with LRCX the only exception at +36% YoY. From 2018-24, ASML/KLAC's China revenue captured strong growth at 32%/28% CAGR, but in 2025 the revenue was down HSD YoY, indicating that there is indeed some pull forwards as the competition from local players was very limited. Comparing TEL/AMAT/LRCX where the competition with Chinese vendors in Deposition/Dry Etch is more intense, between 2018-24 clearly TEL benefited more than AMAT/LRCX as the priority for local fabs is to de-Americanize rather than fully localize, with 2018-24 CAGR at 25%/12%/15%, respectively. However, interestingly LRCX revenue in 2025 was up 36% YoY with TEL/AMAT at -20%/-12%, we believe it's mainly due to the customer mix change, as the incremental demand in 2025 was mainly advanced logic where LRCX has higher share (most Dry Etch tools are not banned). Looking beyond 2025, we expect global vendors' exposure in China will further normalize as non-China demand is growing faster, and local players could accelerate share gain given the pull-forward from the global players slowed down.

Maintain Outperform on NAURA, AMEC, Piotech. Within our coverage, as Deposition / Dry Etch segments have large TAM and self-sufficiency is still accelerating, we still like all three that benefits from the irreversible localization trend. We believe the share gain story will be a multi-year runway given the certainty of domestic fab expansion. Recently the local memory customers have significantly revised up their plan on capacity expansion for the next few years due to the memory supercycle, and we believe advanced logic will also accelerate capacity expansion given the surge in demand for local AI chips.

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BERNSTEIN TICKER TABLE

Ticker	Rating	Cur	27 May 2026 Closing Price	Price Target	TTM Rel. Perf.	Cur	Reported EPS 2025A	Reported EPS 2026E	Reported EPS 2027E	Reported P/E (x) 2025A	Reported P/E (x) 2026E	Reported P/E (x) 2027E
688012.CH (AMEC)	O	CNY	455.05	500.00	120.0%	CNY	3.40	4.95	7.18	133.8	92.0	63.3
002371.CH (NAURA)	O	CNY	654.77	680.00	65.6%	CNY	5.66	10.22	16.41	115.6	64.1	39.9
688072.CH (Piotech)	O	CNY	667.00	580.00	312.9%	CNY	3.32	8.12	12.40	200.9	82.1	53.8
8035.JP (Tokyo Electron)	O	JPY	52,500	59,200	83.9%	JPY	1,250.88	1,504.14	1,848.77	42.0	34.9	28.4
AMAT (Applied Materials)	O	USD	454.89	525.00	148.2%	USD	9.42	12.17	15.56	48.3	37.4	29.2
LRCX (Lam Research)	O	USD	322.68	340.00	249.8%	USD	4.14	5.68	7.98	78.0	56.8	40.4
6525.JP (Kokusai)	O	JPY	7,770.00	8,240.00	107.0%	JPY	128.63	200.23	274.61	60.4	38.8	28.3
6146.JP (DISCO)	O	JPY	67,630	85,000	58.9%	JPY	1,246.28	1,733.62	2,127.33	54.3	39.0	31.8
6857.JP (Advantest)	O	JPY	27,130	39,200	231.2%	JPY	534.21	735.65	870.09	50.8	36.9	31.2
7735.JP (Screen)	M	JPY	11,220	12,600	70.5%	JPY	486.61	572.60	662.24	23.1	19.6	16.9
6920.JP (Lasertec)	O	JPY	41,530	50,000	134.1%	JPY	937.82	893.18	976.61	44.3	46.5	42.5
ASML.NA (ASML)	O	EUR	1,376.40	1,700.00	92.1%	EUR	24.72	32.69	46.98	55.7	42.1	29.3
ASML (ASML)	O	USD	1,632.03	1,971.00	83.9%	USD	27.95	36.96	53.13	50.3	38.0	26.4
ASIAX			1,997.51									
JPL			2,551.66									
SPX			7,520.36									
EDME			1,556.49									

O - Outperform, M - Market-Perform, U - Underperform, NR - Not Rated, CS - Coverage Suspended

AMAT, LRCX estimate is Adjusted EPS; AMAT, LRCX valuation is Adjusted P/E (x);

Source: Bloomberg, Bernstein estimates and analysis.

INVESTMENT IMPLICATIONS

NAURA (Outperform, CNY **680.00**): As the domestic WFE leader, NAURA has the broadest product portfolio covering Deposition (PVD, CVD), Dry Etch (ICP), Thermo Processes, and Cleaning, as well as a more diverse client base covering leading logic, DRAM, NAND players, benefiting from the WFE domestic substitution in China with acceleration share gain.

AMEC (Outperform, CNY **500.00**): Primarily focused on Dry Etch (CCP, ICP) with rapid expansion in Deposition (ALD, LPCVD, EPI), commonly perceived as the domestic WFE company with the best technology and widest global recognition, continue to benefit from the WFE domestic substitution in China with acceleration share gain.

Piotech (Outperform, CNY **580.00**): Rising domestic WFE vendor primarily focused on Deposition (PECVD, HDPCVD, SACVD, ALD) with expansion in W2W and C2W hybrid bonding equipment for advanced packaging. Piotech has a strong track record of product innovation, which should allow it to benefit from the WFE domestic substitution in China with acceleration share gain.

Tokyo Electron (Outperform, **¥59,200**): TEL is the #4 SPE supplier globally and the biggest Japanese SPE supplier with major presence in 6 product segments. It is expected to gain share and expand margins with competitive pricing after yen depreciation.

Kokusai (Outperform, **¥8,240.00**): Batch ALD should see more adoption in advanced nodes especially GAA (gate-all-around). The biggest use of batch ALD is in NAND, and NAND capex recovery is accelerating.

Screen (Market-Perform, **¥12,600**): Cleaning intensity is not increasing, and the market is competitive with both global rivals (TEL, Lam) and Chinese (ACMR, Naura). Potential upside from panel level packaging is worth watching.

AMAT (Outperform, $**525.00**): We maintain a positive view on secular WFE growth and see a number of drivers for AMAT including SAM growth, an increasing services narrative, and capital return.

LRCX (Outperform, $**340.00**): CY25 commentary seems supportive, and a NAND upgrade cycle may be starting.

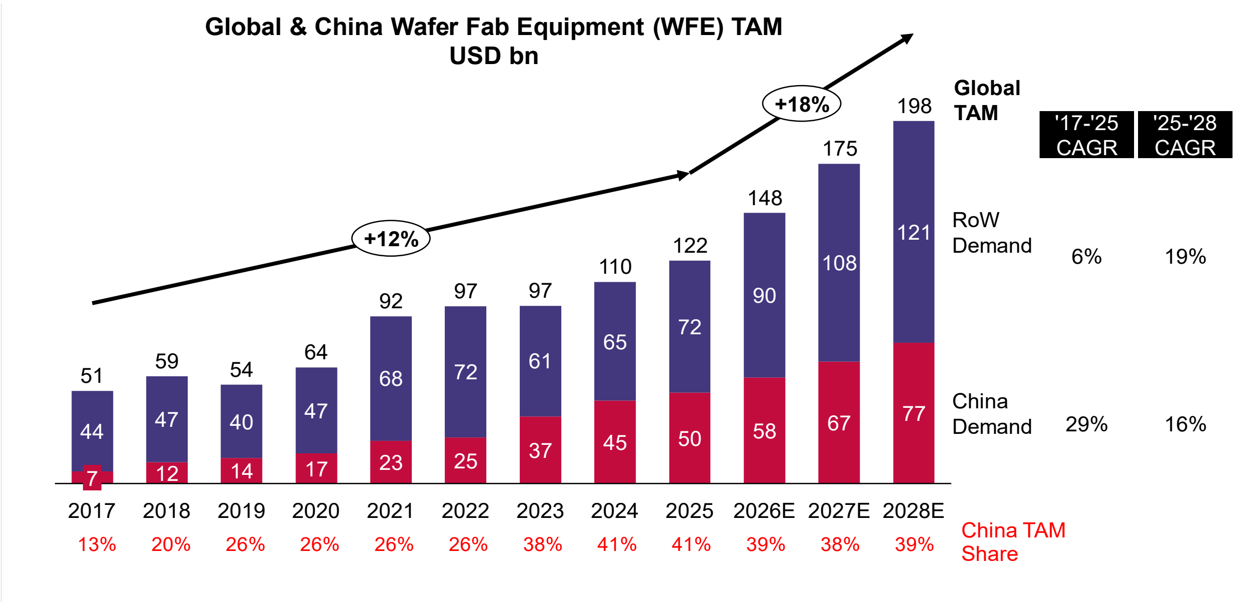
ASML (Outperform, EUR **1,700.00**): We rate ASML Outperform.

DETAILS

In our competitive dynamics report last year (China Semicap: 2024 WFE Competitive dynamics in China), we provided a cross-section view on China Semicap progress and an in-depth analysis of individual Chinese WFE vendors. In this report, we refresh our data to 2025 and offer our latest insights on the competitive dynamics shift within China.

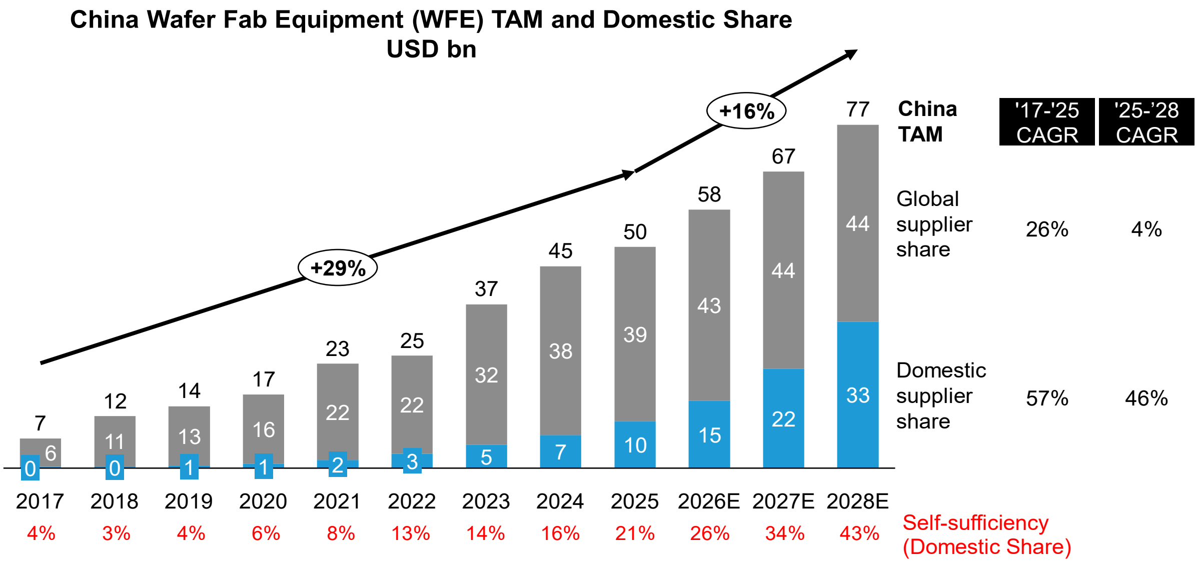
2025 was another record-high year for China's WFE demand, reaching $50bn (accounting for 41% of the global TAM of $122bn, Exhibit 1). Domestic substitution continued at a remarkably fast pace, driving the overall localization ratio to rise from 16% in 2024 to 21% in 2025 (Exhibit 2). We highlight that while there was pull-forward demand in the 2023 and 2024 China total WFE numbers, the accelerated share gains by domestic vendors represent genuine technological and commercial breakthroughs. Looking into 2026 and 2027, we expect domestic vendors to continue outgrowing their global peers, ensuring that the rapid share shift remains a multi-year secular trend.

EXHIBIT 1: **Global WFE: China demand expected to be weaker while non-China could still go up in 2025**



Source: Gartner, SEMI, Bernstein estimates and analysis

EXHIBIT 2: **China WFE: Acceleration in domestic substitution continues, expect the self-sufficiency to reach 26% by 2026**



Source: Gartner, SEMI, Company reports, Bernstein estimates and analysis

CHINA WFE COMPETITIVE DYNAMICS BY SEGMENT

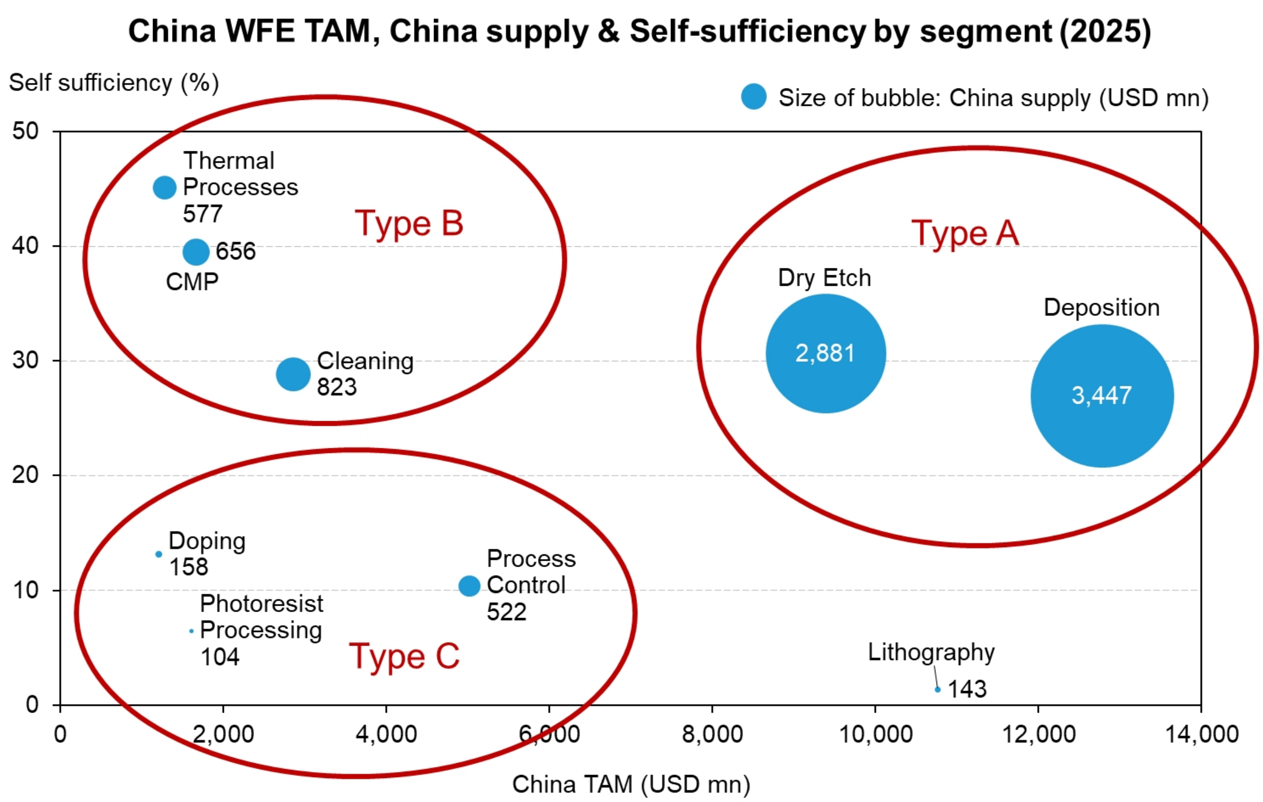
China's WFE self-sufficiency ratio advanced to 21% in 2025, yet the progress remains highly bifurcated across different process steps. Based on domestic self-sufficiency and the China Total Addressable Market (TAM) for each segment, we categorize the market into three types: (you can find the definition of each segment in our previous report Global Semicap: Short primer on segments of Wafer Fab Equipment (WFE)):

- Type A: Large segments where Chinese players are making substantial progress (Dry Etch and Deposition). Because the technology barriers, while high, are more surmountable than in lithography, leading domestic players have successfully broken into core supply chains. In 2025, self-sufficiency in Dry Etch and Deposition reached 31% and 27%, respectively. This was supported by robust YoY growth of 37% for Dry Etch and 67% for Deposition among local players. These figures confirm our thesis that these two segments are in the sweet spot for rapid domestic substitution acceleration.

- Type B: High-barrier segments with low self-sufficiency (Lithography, Process Control, Doping, and Photoresist Processing). Lithography remains the most challenging bottleneck, showing virtually no progress in domestic substitution. However, Process Control outperformed our expectations, achieving a 63% YoY growth for local players; yet given the low base, overall self-sufficiency remains minimal at roughly 10%. Conversely, local supply in Doping and Photoresist Processing failed to capture strong growth, reflecting the persistently high entry barriers and slow progress of domestic players in these areas.

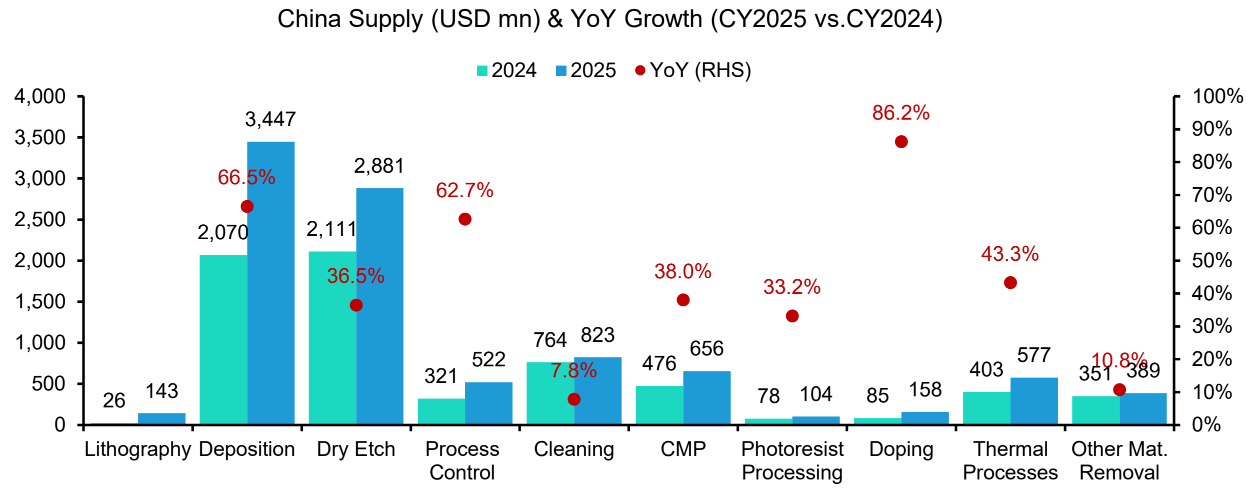
- Type C: Smaller segments with relatively high self-sufficiency (Cleaning, Thermo Processing, CMP, and other Materials Removal). With relatively lower technological hurdles, domestic leaders have made substantial headway. In 2025, Cleaning, Thermo Processing, and CMP achieved strong YoY growth of 8%, 43%, and 38%, respectively. Chinese equipment makers now dominate the mature nodes in these areas and are steadily pushing into higher-end, advanced-node sub-segments.

EXHIBIT 3: **In 2025, Chinese players kept growing in Deposition & Dry Etch where U.S. players were traditionally stronger**



Every data point has Bernstein estimates factored in given company usually doesn't disclose such details.
Source: Gartner, Company reports, Bernstein analysis and estimates

EXHIBIT 4: **China WFE supply & YoY growth**



Source: Gartner, Company reports, Bernstein analysis and estimates

Regarding the competition within each sector, we first analyze the competitive dynamics amongst Chinese vendors. Due to the high barriers in WFE, the market share is skewed to a few large players in each segment as we can see in the global sector, and we observed a similar pattern in China based on our bottom-up analysis (Exhibit 5). The dynamics within each segment are illustrated below (please refer to the glossary in the appendix for the explanation of the abbreviations):

- **Deposition:** NAURA and Piotech remain the two major players. NAURA dominates in PVD, maintains a monopoly in that equipment type, and continues to secure a larger share of the overall local deposition market. It is also developing a variety of CVD equipment (such as CVD/ALD for High-K Metal Gate) with revenue contributions continuing to ramp up. Piotech leads in PECVD and its ALD is also growing fast, though it experienced slight share dilution due to delays in revenue recognition. AMEC has started to recognize revenue in LPCVD/ALD as it aggressively develops new equipment within the segment. ACMR's strength is in ECP, and it is also doing R&D on PECVD, though we don't expect the latter to contribute meaningful revenue in the near term. Leadmicro is a smaller player working on ALD, currently in the earlier stages of commercialization for WFE. Although competition is intensifying, they still focus on different processes and thus the overlap remains manageable. We believe the leaders (NAURA and Piotech) will continue to capture strong momentum given their technical competency and deeper bonding with leading fabs, while AMEC is emerging as a strong new entrant with its solid tech capabilities.

- **Dry Etch:** AMEC and NAURA are the two leaders in the space. AMEC continues to gain share within this segment, driven by its established strength in CCP and strong ongoing growth in ICP in 2025. NAURA still mainly focuses on ICP, and its CCP revenue will likely start to emerge more meaningfully in 2026 based on orders from late 2024 and 2025. The specific equipment types that NAURA and AMEC have developed still have limited overlap, but they will eventually enter head-to-head competition. Over the medium to long term, after Chinese vendors have exhausted the white space expansion, the competition between these two giants will be inevitable, as fabs will seek a secondary supplier for supply chain resiliency. However, new entrants in Dry Etch are highly unlikely, given that NAURA and AMEC have already built a strong tech moat through decades of R&D and co-development support from leading fabs.

- **Lithography:** SMEE (private, together with Yuliangsheng 宇量昇) remains the only player that has commercially available lithography equipment in China (with the majority of the revenue from back-end lithography equipment), and self-sufficiency remains extremely low. China is investing aggressively in Lithography (DUV and EUV), but given the extremely high barriers, it will likely still take years to make any meaningful commercial breakthrough.

- **Process Control:** Skyverse is the leader in Unpatterned Wafer Inspection and is actively developing Patterned Wafer Inspection equipment. Overall progress for local players in this segment was better than our expectations in 2025, driven by strong YoY growth, though aggregate self-sufficiency remains low. There are many start-ups focusing on different sub-segments of Process Control in China given the fragmented nature of the equipment types, and SiCARRIER is entering the space with strong momentum.

- **Cleaning & Other Materials Removal:** The technology barrier in some mature cleaning processes is lower, so there are more players in this space, though each leader focuses on different areas. ACMR has seen a significant share gain and expanded its market presence to become the dominant player in the Cleaning segment, leveraging its strength in wet cleaning equipment. Mattson (acquired by E-town, private), remains the largest player in the Other Material Removal segment, with its core strength in Dry Strip.

- **Thermal Processes:** NAURA is the leader, covering both the furnace and RTP sub-segments. Mattson's strength remains in RTP.

- **Doping:** CETC (private) and Kingstone are the leaders. Both companies have a strong presence in High Current Implanters, while CETC has more exposure to Medium Current Implanters and Kingstone has more exposure to High Voltage Implanters. Local supply did not grow as rapidly as other segments in 2025, reflecting the high barriers and the slower progress of domestic players in this space.

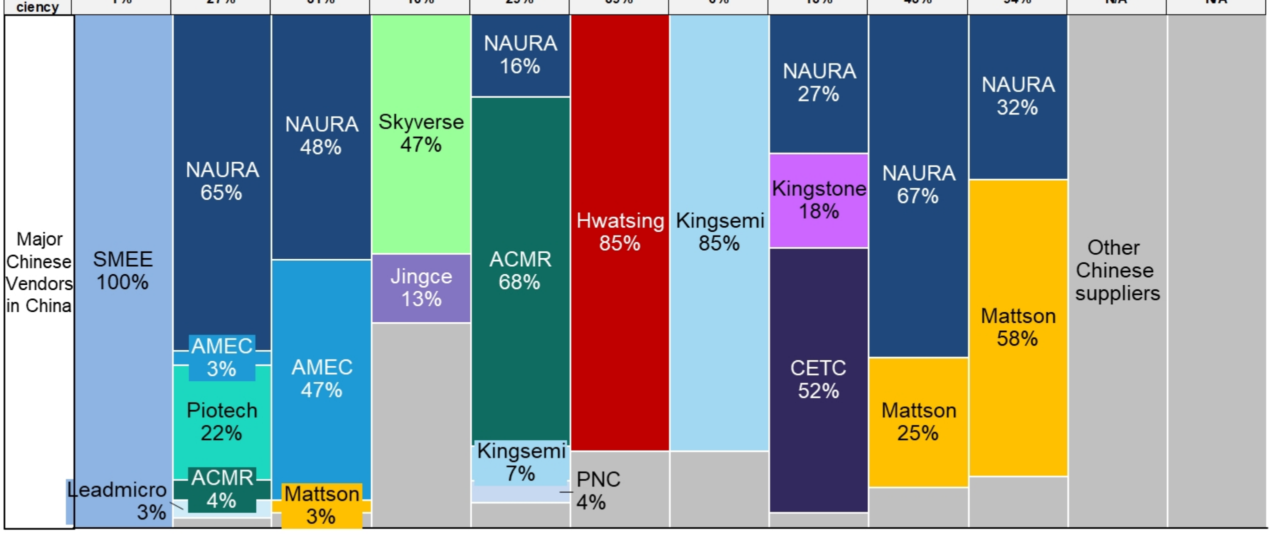
- **CMP:** Hwatsing is the undisputed leader in CMP, and its equipment has been widely used in leading local fabs.

- **Photoresist Processing (Track):** Kingsemi is the leader and is currently the only Chinese manufacturer that can provide mass-produced Front-End photoresist coater & developer equipment (recently acquired by NAURA). Similar to lithography and doping, localization progress remains slow. ACMR is also developing its track products, with revenue expected to begin scaling progressively.

EXHIBIT 5: **Major Chinese vendor's share within domestic suppliers, CY2025**

Major Chinese Wafer Fab Equipment suppliers by segment (CY2025)

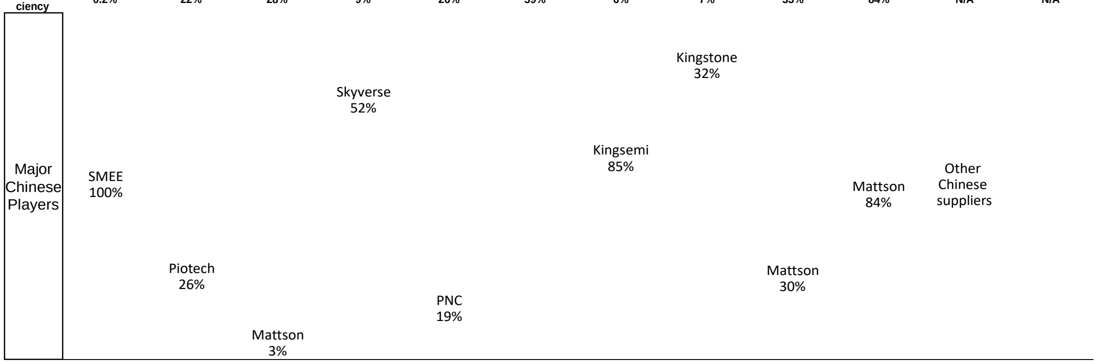
Segment	Lithography	Deposition	Dry Etch	Process Control	Cleaning	CMP	Photoresist Processing	Doping	Thermal Processes	Other Mat. Removal	Mfg. Automation	Others
Share of WFE	21%	25%	19%	10%	6%	3%	3%	2%	3%	1%	3%	3%
China TAM (USD mn)	10,762	12,779	9,393	5,019	2,857	1,662	1,609	1,205	1,280	413	1,592	1,581
China supply (USD mn)	143	3,447	2,881	522	823	656	104	158	577	389	N/A	N/A
Self sufficiency	1%	27%	31%	10%	29%	39%	6%	13%	45%	94%	N/A	N/A



1) Market share is calculated with each company's forecasted WFE revenue excluding services and parts; 2) AMEC, NAURA and Piotech are covered by Bernstein; all other companies are not covered; SMEE, CETC and Mattson are private; 3) All listed companies are listed in China, except that ACMR is dual-listed in China (688082.CH) and U.S. (ACMR.US)
Source: SEMI, Gartner, MIR, Company reports, Bernstein analysis and estimates

EXHIBIT 6: **Major Chinese vendor's share within domestic suppliers, CY2024**

Share o WFE	24%	23%	16%	12%	6%	3%	3%	3%	3%	1%	4%	3%
China TAM (USD mn)	10,750	10,351	7,212	5,375	2,799	1,231	1,426	1,401	1,330	380	1,628	1,231
China supply (USD mn)	26	2,286	2,006	482	736	484	83	96	438	319	N/A	N/A
Selsuffi-ciency	0.2%	22%	28%	9%	26%	39%	6%	7%	33%	84%	N/A	N/A



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major players, and their market shares. The top of each column records the share of that segment within total WFE and the size of the China TAM, which reached an estimated $50bn in 2025, accounting for a massive 41% of global WFE demand.

Lithography remains the segment with the largest Total Addressable Market (TAM). Following the significant pull-in demand observed in recent years driven by fears of further U.S. sanctions, demand for lithography equipment remained structurally robust. With virtually no viable local alternatives and domestic substitution making zero meaningful progress in 2025, ASML continues to be the dominant player and the primary beneficiary of this sustained capacity expansion.

Deposition represents another core segment of the China WFE market. In 2025, domestic players made substantial progress, reaching a 27% self-sufficiency ratio supported by a strong 67% YoY growth among local suppliers. Within the domestic competitive landscape, NAURA successfully secured a larger piece of the pie, expanding its market share from 13% in 2024 to 18% in 2025. Concurrently, AMEC started to recognize small CVD revenues, marking a strategic entry into the deposition space, whereas Piotech experienced a slight share loss due to delays in revenue recognition. On the global front, the de-Americanization priority of local fabs is highly visible: Tokyo Electron (TEL) has capitalized on this trend far more effectively, capturing market share at the expense of U.S. peers like Applied Materials (AMAT) and Lam Research (LAM).

Dry Etch continues to be a battleground where domestic players are catching up at an impressive pace. In 2025, local suppliers achieved a 37% YoY growth, driving the segment's self-sufficiency ratio to 31%. AMEC demonstrated remarkable commercial momentum,maintaining its share at 14%. NAURA also remains a formidable leading competitor in this space. Notably, LRCX's Dry Etch share in China expands to 28% in 2025 from 22% in 2024.

Process Control delivered progress that significantly exceeded our expectations, with local players recording a remarkable 61% YoY growth in 2025. However, given the historically low base, the overall self-sufficiency ratio remains marginal at approximately 10%. The dominant player in China remains KLA (KLAC.US); the company continues to benefit immensely from the indispensable nature of its advanced metrology and inspection tools, maintaining a tight grip on the market. While Chinese competitors like Skyverse and Jingce are making incremental inroads, the massive gap in product diversity implies it will take several more years for local players to fully close the technological deficit.

Cleaning equipment saw solid momentum, with local suppliers largely maintained the share. Notably, Kingsemi is expanding its footprint in cleaning equipment and we expect it will gain more momentum after its consolidation with NAURA.

CMP equipment achieved a steady 38% YoY growth among local suppliers in 2025. Because this area has relatively lower technological barriers, China maintains a high self-sufficiency ratio. Domestic player Hwatsing continues to challenge AMAT's historical leadership, while Japanese supplier Ebara remains a key beneficiary of the ongoing shift away from U.S. vendors.

Photoresist Processing (Track) remains one of the most challenging sectors, characterized by a persistently low localization ratio. Similar to the dynamics observed previously, local supply growth in 2025 remained sluggish, reflecting the formidable technological barriers and the slow progress of domestic players against the dominating incumbent, TEL.

Doping equipment mirrored the struggles seen in the Track segment. Local supply failed to capture the high-growth trajectory seen in Deposition or Etch, underscoring the high barriers to entry. Because doping requires extensive verification times—often only evaluated at the very last step of the process due to its impact on electrical performance—domestic players have found it exceptionally challenging to close the technology and know-how gap against established platform leaders.

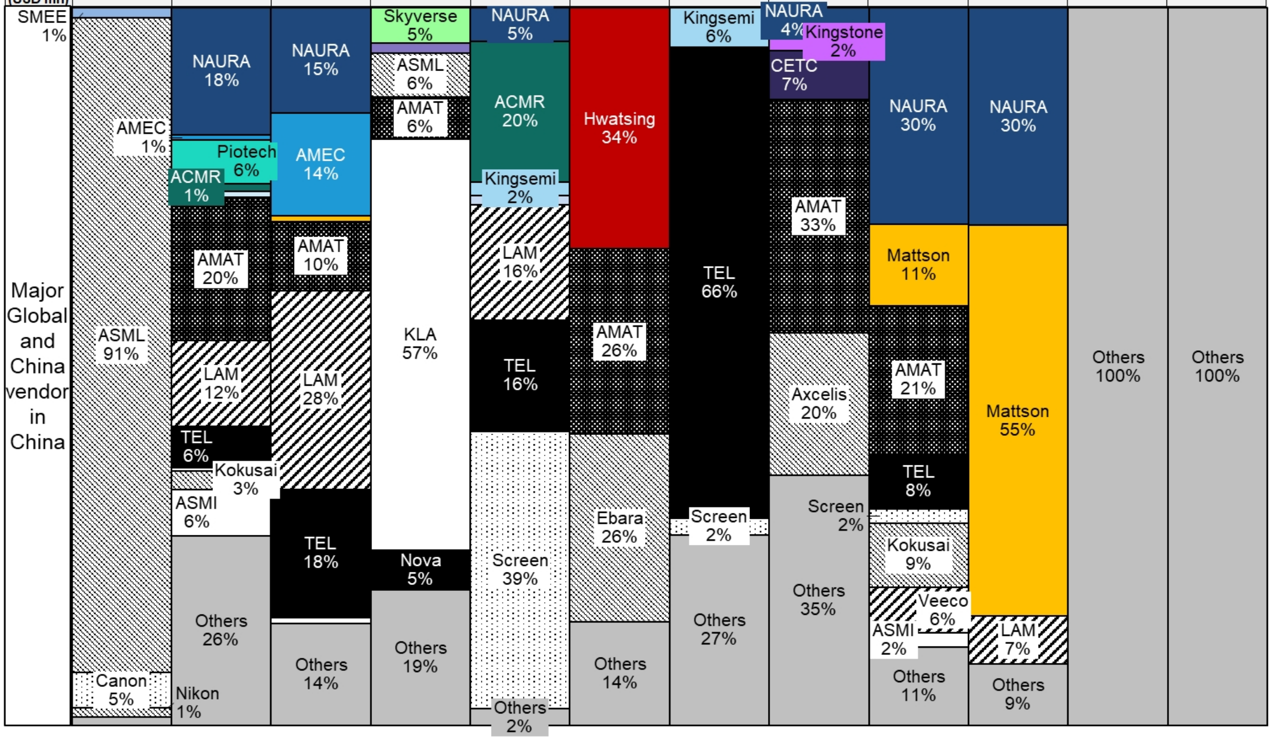
Thermal Processes achieved a healthy 43% YoY growth among domestic players in 2025. The technological maturity of Chinese players here is already quite high, with NAURA leading in vertical furnaces and Mattson (a Chinese-acquired entity) leading in Rapid Thermal Processing (RTP) systems.

Other Materials Removal equipment, which includes Dry Strip and Bevel Edge Removal, continues to be led by Mattson with its stronghold in Dry Strip equipment, followed by NAURA and LAM. Manufacturing and Automation and Others segment takes the remaining low-single-digit share of the China WFE market.

EXHIBIT 8: **Global & Chinese semicap companies competitive landscape within the China market in CY2025**

Major Global & Chinese suppliers of Wafer Fab Equipment in China by segment (CY2025)

Segment	Lithography	Deposition	Dry Etch	Process Control	Cleaning	CMP	Photoresist Processing	Doping	Thermal Processes	Other Mat. Removal	Mfg. Automation	Others
Share of WFE	21%	25%	19%	10%	6%	3%	3%	2%	3%	1%	3%	3%
TAM (USD mn)	10,762	12,779	9,393	5,019	2,857	1,662	1,609	1,205	1,280	413	1,592	1,581

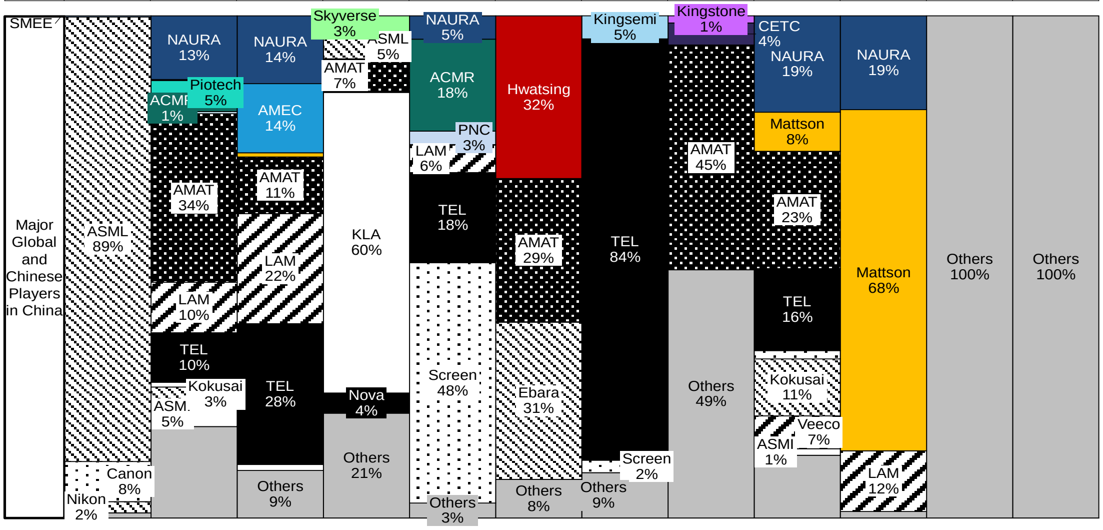


Every data point has Bernstein estimates factored in given company usually doesn't disclose such details.
Source: SEMI, Gartner, MIR, Company reports, Bernstein analysis and estimates

EXHIBIT 9: **Global & Chinese semicap companies competitive landscape within the China market in CY2024**

Major Global & Chinese suppliers of Wafer Fab Equipment in China by segment (CY2024)

Segment	Lithography	Deposition	Dry Etch	Process Control	Cleaning	CMP	Photoresist Processing	Doping	Thermal Processes	Other Mat. Removal	Mfg. Automation	Others
Share of WFE	24%	23%	16%	12%	6%	3%	3%	3%	3%	1%	4%	3%
TAM (USD mn)	10,750	10,418	7,283	5,214	2,831	1,248	1,446	1,421	1,375	385	1,651	1,249



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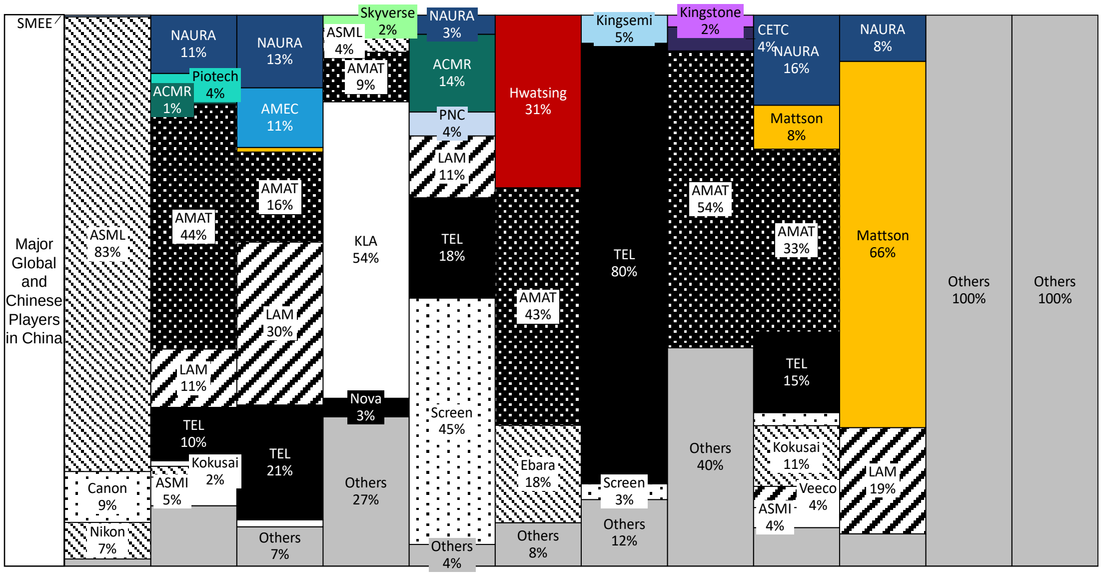
Source: SEMI, Gartner, MIR, Company reports, Bernstein analysis and estimates

EXHIBIT 10: **Global & Chinese semicap companies competitive landscape within the China market in CY2023**

Major Global & Chinese suppliers of Wafer Fab Equipment in China by segment (CY2023)

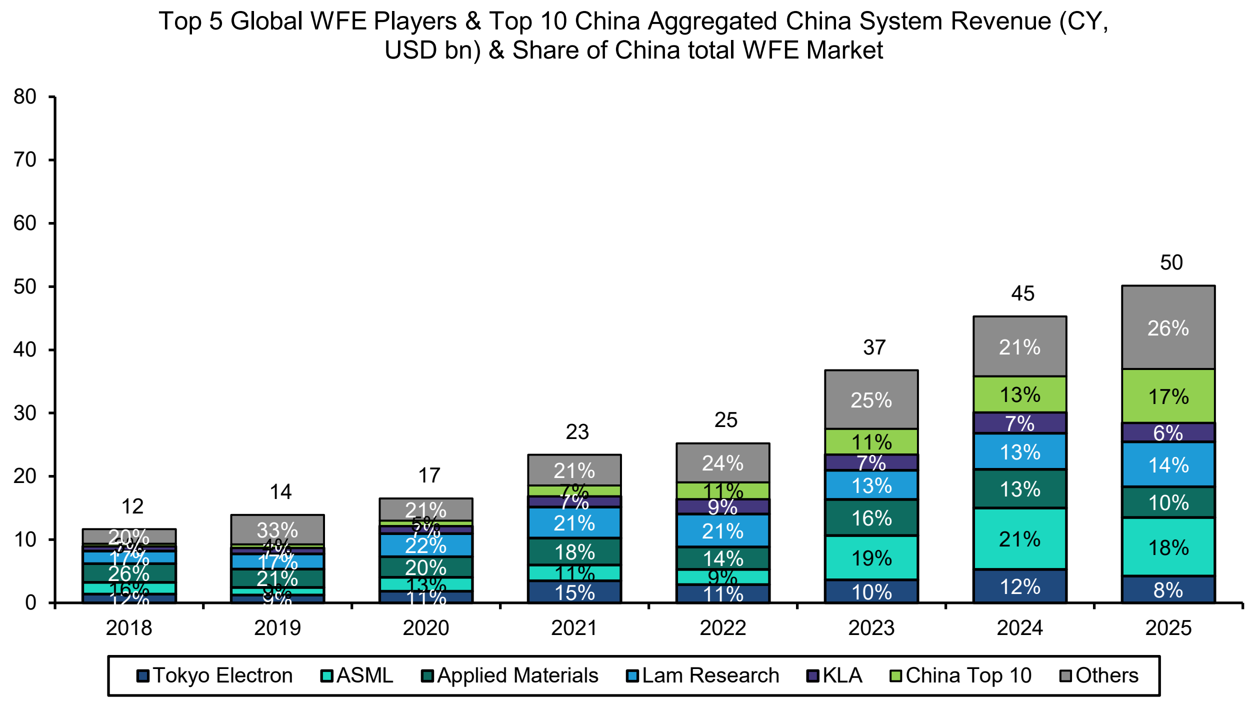
Segment	Lithography	Deposition	Dry Etch	Process Control	Cleaning	CMP	Photoresist Processing	Doping	Thermal Processes	Other Mat. Removal	Mfg. Automation	Others
Share of WFE	24%	23%	15%	12%	6%	3%	3%	4%	3%	1%	4%	3%
TAM (USD mn)	8,762	8,358	5,640	4,320	2,098	1,016	1,285	1,299	1,115	303	1,447	1,120



Every data point has Bernstein estimates factored in given company usually doesn't disclose such details.
Source: SEMI, Gartner, MIR, Company reports, Bernstein analysis and estimates

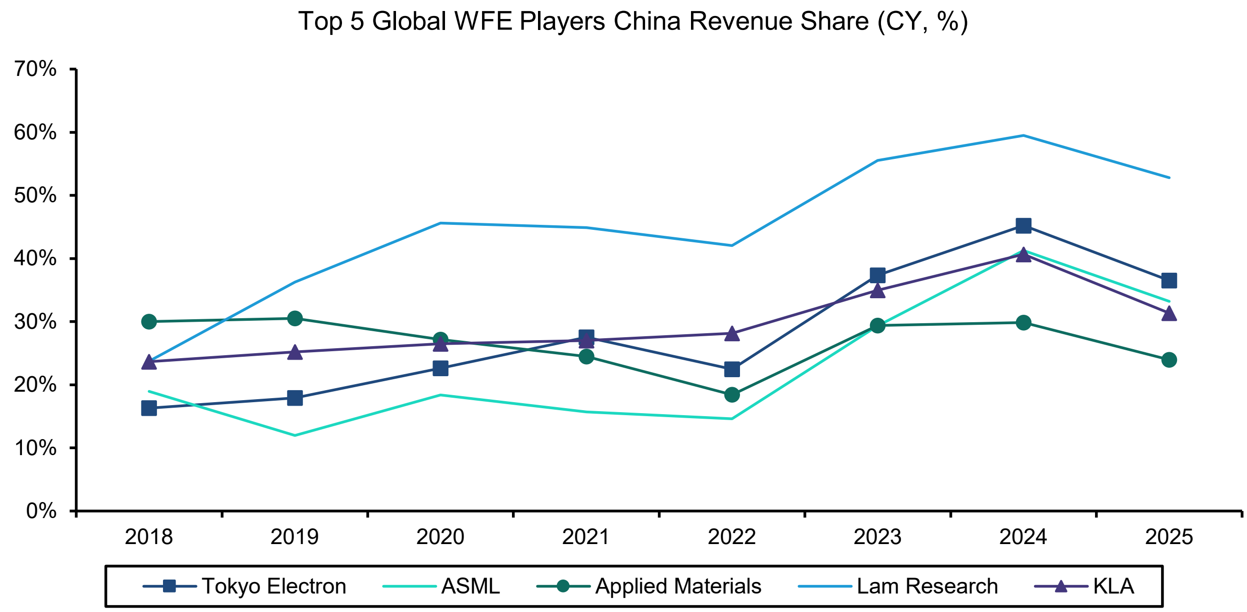
We highlight that while the record-high China WFE spending in 2023 and 2024 was partially inflated by pull-forward demand ahead of geopolitical restrictions, the accelerated share gains by domestic vendors reflect genuine, sustainable commercial breakthroughs. Looking into 2026 and 2027, we expect domestic vendors to structurally outgrow their global peers. Our latest industry model forecasts that domestic top 10 equipment players will expand their market share from 17% in 2025 to approximately 25% by 2028. This trajectory implies a strong ~35% CAGR for Chinese Semicap players between 2024 and 2028, completely eclipsing the muted, low-single-digit growth profile of global peers in the region. As domestic fabs increasingly prioritize supply chain resilience, this rapid share shift will remain a definitive multi-year secular trend.

EXHIBIT 11: **China WFE market buildup - global top 5 takes about 50% share, while China top 10 takes about 20% share**



Source: Company reports, Bloomberg, Bernstein analysis and estimates

EXHIBIT 12: **TEL has the highest China revenue share while AMAT has the lowest China share**



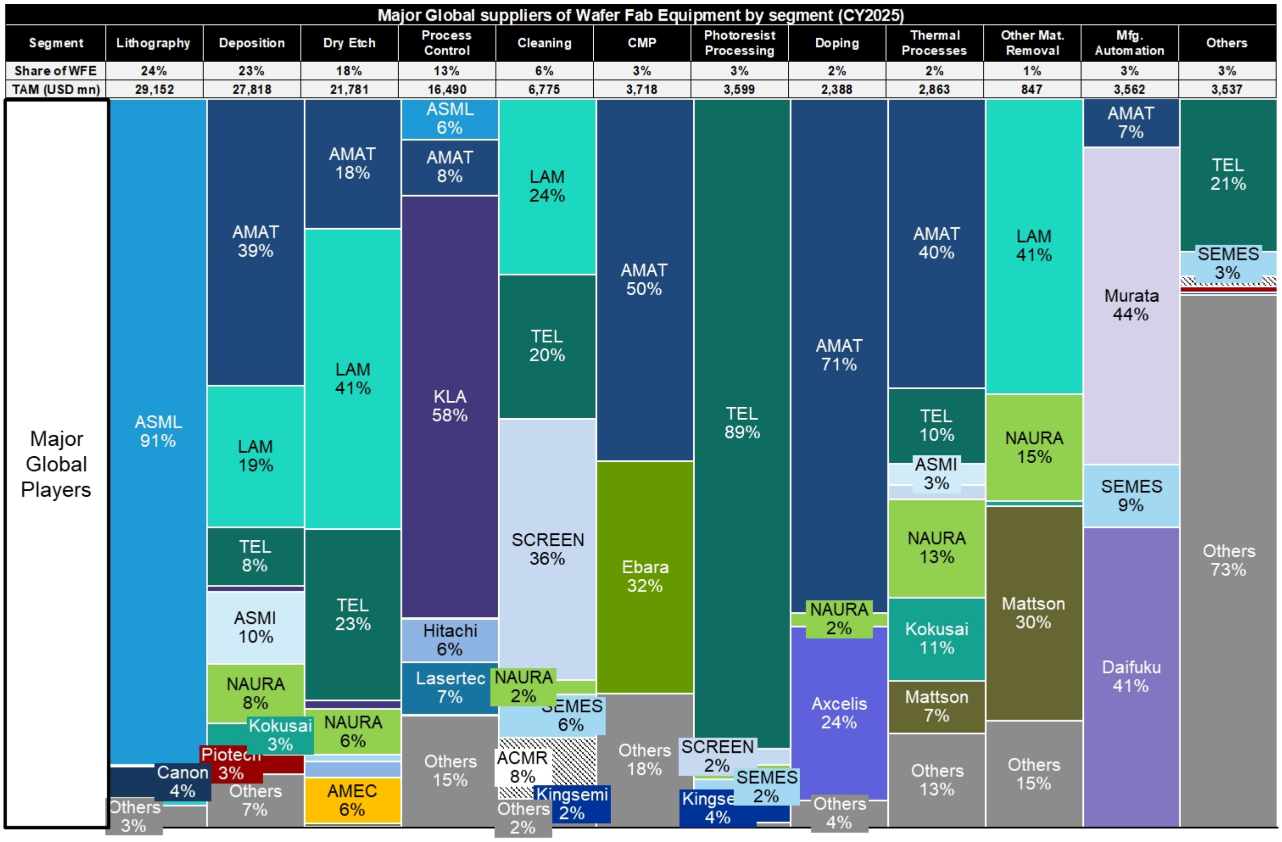
AMAT's China revenue shares are estimated by Bernstein. We exclued AMAT's pannel business given most of its display customers are based in China which will make AMAT's China revenue proportion higher.
Source: Company reports, Bernstein analysis and estimates

EXHIBIT 13: **All five companies expect China WFE to be roughly flat YoY but China as a percentage of revenue to normalize lower in 2026 vs. the elevated 2024–2025 levels**

Company	Ticker	Lastest Comments on China WFE (CY2Q26 & CY2026)
ASML	ASML.NV	ASML guided China to represent approximately 20% of total net sales in 2026, consistent with its current system backlog — a significant decline from 33% in 2025 and 41% in 2024. Management views the elevated 2024–2025 China sales levels as unsustainable, reflecting a normalization after fulfilling a substantial backlog.
Applied Materials	AMAT	In Q2 FY2026, China accounted for 24% of semiconductor systems plus AGS revenue, down from 30% of overall sales in Q1 FY2026, where revenue declined 7% year-over-year. For the full calendar year, Applied Materials expects its China business, along with its ICAPS business worldwide, to be flat to slightly higher — an improvement from the prior guidance of down year-over-year.Management expects China to be flat to slightly up for the calendar year, with ICAPS globally also guided to be flattish.
Lam Research	LRCX	China accounted for 34% of total revenue in Q3 FY2026, a slight decrease from 35% in Q2 FY2026, though it grew approximately $115 million quarter-over-quarter in absolute terms. Lam anticipates China revenue will decline in the June 2026 quarter from current levels.The company expects China's percentage of total revenue to decrease over time as growth from global multinational customers outside China increases.
KLA	KLAC	China represented 24% of total revenue in Q3 FY2026, down from approximately 30% in Q2 FY2026, with minimal impact expected from additional US export bans.KLA's view is that China WFE will grow at a slower rate than overall WFE, with spending levels in China remaining relatively flat over the last few years. Growth in China is expected to be more greenfield-focused rather than technology-upgrade driven. For CY2026, KLA models China's contribution to revenue in the mid-to-high 20% range
Tokyo Electron	8035.JP	For FY2026 (ended March 2026), China represented 34.1% of total sales, declining to 26.8% in Q4 FY2026 — a 5 percentage point sequential drop — as leading-edge node spending grew faster than mature nodes.Management guided China's share of revenue to be in the mid-30s for 2026, a normalization from the high-30s seen in the prior year.

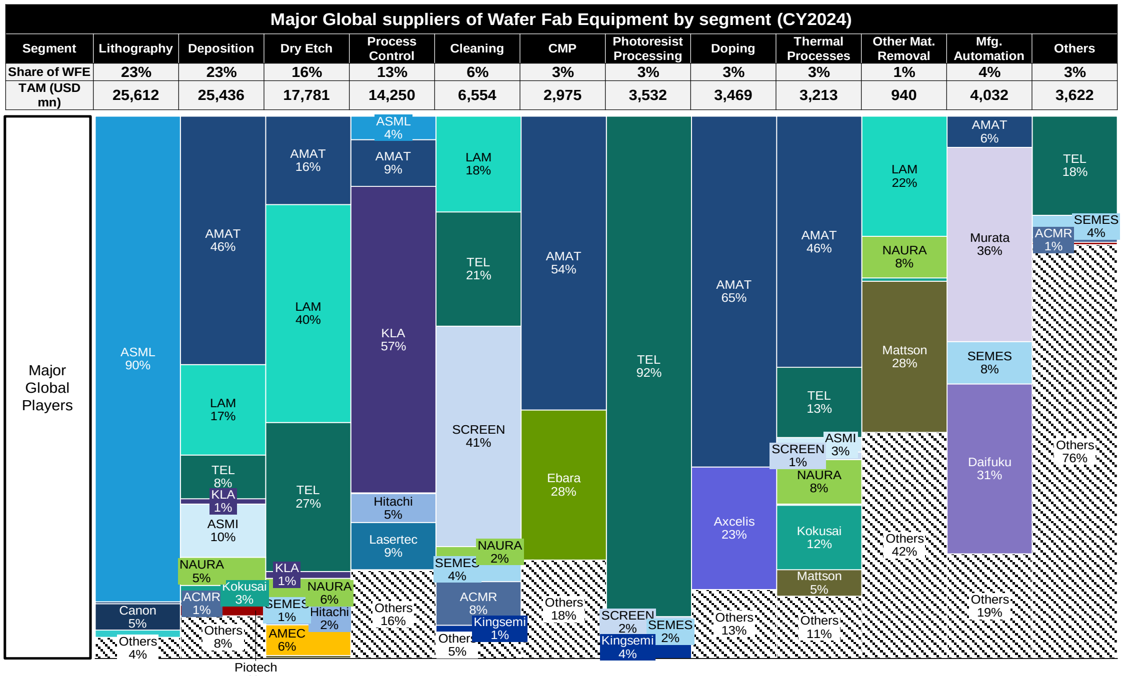
Source: Company reports, Bernstein analysis

EXHIBIT 14: **Global semicap competitive landscape in CY2025**



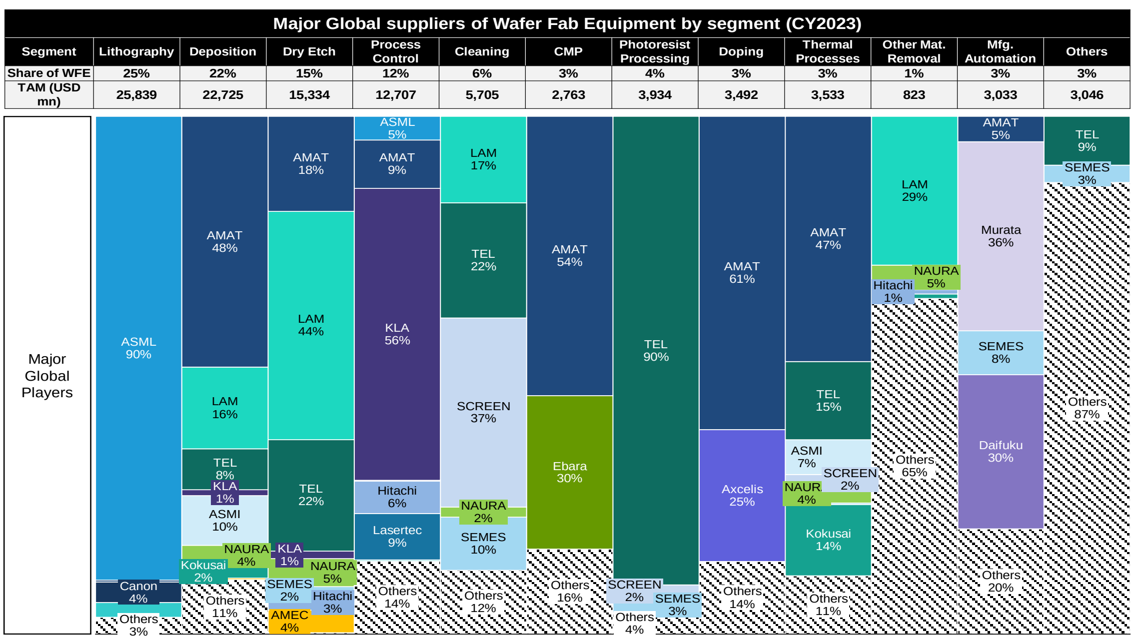
Source: Gartner, Bernstein analysis

EXHIBIT 15: **Global semicap competitive landscape in CY2024**



Source: Gartner, Bernstein analysis

EXHIBIT 16: **Global semicap competitive landscape in CY2023**



Source: Gartner, Bernstein analysis

APPENDIX

METHODOLOGY FOR THE TAM SIZING BY SEGMENT

- We used the lithography total imports to China plus our estimated Chinese player total sales in this segment to represent China's Lithography TAM. For competitive dynamics, we used the lithography imports from Netherland to calculate ASML's share (the numbers are slightly different from ASML's China WFE revenue, potentially due to revenue recognition timing difference); we used the lithography imports from Japan and multiply by their global market share mix reported by Gartner to estimate Nikon and Canon's share in China.

- We used the Process Control imports to China, plus the estimated local players aggregated sales in this segment to represent China's Process Control TAM.

- We allocated the rest of China's total TAM (total market size minus the TAM of Lithography and Process Control) proportionally based on Gartner's global market size allocation by segment.

- We estimated each public global suppliers' China total WFE by multiplying their total revenue, China revenue mix, and WFE revenue mix. We then allocated each player's China WFE revenue to different segments based on their product mix by segment in global market (from Gartner), with some adjustments based on cross-checking with total segment data.

- We tracked each public Chinese supplier's revenue and exclude their non-WFE and non-China revenue. For companies like NAURA that don't disclose the mix, we made estimates based on our communication with companies and channel checks. We refer to Gartner for some private Chinese supplier's revenue.

GLOSSARY

EXHIBIT 17: **Glossary of some semiconductor manufacturing techniques**

Abbreviation	Full name	Process	Detailed explanation
Semicap	Semiconductor Capital Equipment		Semicap refers to the broader category of equipment used in the semiconductor industry, including WFE, assembly and packaging equipment, and testing equipment
WFE	Wafer Fabrication Equipment		WFE is a subset of Semicap that specifically refers to the machines and tools used in the manufacturing process of semiconductor wafers, i.e., Front End of chip manufacturing (including part of advanced packaging where the equipment is also used to process wafers)
ICP-RIE	Inductively Coupled Plasma - Reactive Ion Etching	Dry etch	ICP-RIE uses a high-frequency electromagnetic field to generate a dense and highly reactive plasma remove material from a substrate
CCP-RIE	Capacitively Coupled Plasma - Reactive Ion Etching	Dry etch	CCP-RIE uses a radio frequency electric field to generate a plasma and remove material from a substrate
PVD	Physical Vapor Deposition	Deposition	PVD is a thin film deposition technique that involves the transfer of material from a source to a substrate in a vacuum environment
PECVD	Plasma-Enhanced Chemical Vapor Deposition	Deposition	PECVD is a thin film deposition technique that uses a plasma to enhance the chemical reactions between gases and a substrate to deposit a thin film on a substrate
LPCVD	Low Pressure Chemical Vapor Deposition	Deposition	LPCVD involves the reaction of gases at low pressure and high temperature to deposit a thin film on a substrate
SACVD	Sub-Atmospheric Pressure Chemical Vapor Deposition	Deposition	SACVD involves the reaction of gases at sub-atmospheric pressure and high temperature to deposit a thin film on a substrate
ALD	Atomic Layer Deposition	Deposition	ALD involves the sequential exposure of a substrate to alternating gas-phase precursors, resulting in a highly controlled and conformal deposition of thin films with atomic-scale precision
ACHM	Amorphous Carbon Hard Mask	Deposition	One of the advanced dielectric films deposited, which can provide good etch selectivity
UV Cure	Ultraviolet Cure	Deposition	UV cure is a process of curing or hardening a material using ultraviolet light, which triggers a chemical reaction that causes the material to harden or cure in a matter of seconds
HDP-CVD	High-Density Plasma Chemical Vapor Deposition	Deposition	HDP-CVD deposits a thin film on a substrate at relatively low temperature, which helps to minimize thermal stress on the substrate and reduce the risk of defects
CMP	Chemical Mechanical Planarization		CMP is a polishing process used in chip manufacturing to remove imperfections and create a smooth, flat surface on the semiconductor wafer after it has been processed with various layers of materials

Source: Encyclopedia of Integrated Circuit Industry, Bernstein analysis

EXHIBIT 18: **Glossary of different materials used in semiconductor manufacturing**

ACHM	Amorphous Carbon Hard Mask	One o the advanced dielectric ilms deposited, which can provide good etch selectivity, good pattern transer idelity, and low deect density.
SiN	Silicon Nitride	Similar to silicon dioxide, but SiN is a better difusion barrier than silicon dioxide or water molecules and sodium ions as a passivation layer. SiN is an excellent moisture barrier but thick layers are not transparent to UV light.
SiON	Silicon Oxynitride	Similar to SiN, but SiON is typically used or orming dielectric layers and or passivation o non-volatile memory products since it is UV transparent.
PSG	Phosphosilicate Glass	PSG is a dielectric material used interlayer dielectric (ILD) applications. PSG contains phosphorus atoms, which increase the etch rate, making it useul or planarizing topography and illing gaps between metal lines in high-density ICs. PSG is also used as a sacrificial layer in the abrication o microelectromechanical systems (MEMS) devices.
BPSG	Borophosphosilicate Glass	BPSG is used as a dielectric material, dopant source, and sacrificial layer in MEMS devices. BPSG has a lower melting point and higher low rate than PSG, making it useul or illing gaps and planarizing topography. However, BPSG is more prone to stress-induced deects than PSG. BPSG is also used as a dopant source or boron and phosphorus during the difusion process to create the source and drain regions o MOSFETs.
FSG	Fluorosilicate Glass	FSG is a dielectric material used or interlayer dielectric (ILD) applications. FSG contains luorine atoms, which reduce the dielectric constant, reducing signal delay and crosstalk in high-speed IC.
TEOS	Tetraethyl Orthosilicate	TEOS is a silicon source used as a precursor in CVD/PECVD processes to deposit high-quality silicon dioxide thin ilms. It is preerred over other sources due to its low boiling point and reduced risk o particle ormation and contamination.
Thick TEOS	Thick Tetraethyl Orthosilicate	TEOS at micron level resolution
HSN	High Selectivity Nitride	HSN PECVD technique is used or stress memorization technique (SMT) layer in ront-o-the-line (FEOL) processes. SMT involves depositing a stress-inducing layer, such as silicon nitride or silicon carbon, on top o the transistor channel to induce stress and increase charge carrier mobility, so as to improve transistor perormance.
SiOC	Silicon Oxycarbide	SiOC is a ceramic material used as a low dielectric material or advanced interconnects. It has a low dielectric constant, reducing signal delay and crosstalk in high-speed integrated circuits. SiOC is thermally stable and suitable or use in the back-end-o-line (BEOL) process.
Lok I	Low-k I	Doped carbon oxide silicon ilm (SIOC) is a low dielectric constant ilm mainly used as an interlayer dielectric in the back-end-o-line (BEOL) o integrated circuit chips. By utilizing its ultra-low dielectric constant (low k), it reduces leakage current and capacitance eects between wires, thereby improving the perormance o the chip.
Lok II	Low-k II	The ultra-low dielectric constant ilm is the next generation o Lok I. By utilizing an even lower dielectric constant than Lok I, it reduces leakage current and capacitance eects between wires, thereby improving the perormance o the chip.
ADC I	Advanced Nitrogen-doped Carbide	Nitrogen doped carbide, is an advanced nitrogen-doped silicon carbide ilm mainly used as a difusion barrier layer and etch stop layer. Due to its low dielectric constant, it reduces capacitance eects between wires, thereby improving the overall transmission perormance o the chip.
NO Stack, ONON	Oxide-Nitride-Oxide	The oxide-nitride-oxide-nitride (ONO) stack is a step in the process o depositing SiO2 and SiN or the production o 3D NAND lash memory chips. It involves the alternating deposition o oxide and nitride layers to orm a stack.
SAF	High Aspect Ratio Silicon Dioxide Film	The high aspect ratio silicon dioxide ilm process is a technique used to deposit SiO2 ilms with a high aspect ratio, typically used to create deep trenches or vias in advanced memory and logic devices.
CMOS	Complementary Metal-Oxide-Semiconductor	CMOS technology uses a combination o metal, oxide, and semiconductor materials to create tiny transistors that can switch on and o very quickly. These transistors are used to store and process information in digital circuits. CMOS technology is known or its low power consumption, which makes it ideal or use in portable devices like smartphones and laptops.
CMOS (BSI)	Backside Illuminated (BSI) CMOS	BSI CMOS is an improved design o CMOS sensors that arranges the components diferently, allowing or more eicient light capture and reducing image noise.
STI	Shallow Trench Isolation	STI is a technique used in computer chip manuacturing to isolate diferent components on the chip by creating a barrier between them using an insulating material. It improves the perormance and reliability o the chip and is commonly used in microprocessors and memory chips.
ILD	Interlayer Dielectric	Interlayer Dielectric (ILD) is an insulating material that separates the diferent layers o a computer chip to prevent intererence and ensure proper unction.The ILD is like a sandwich illing that separates the layers o the chip. It is a thin, non-conductive material that doesn't take up much space.

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