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Investor Presentation | Japan

Semiconductor Production Equipment: Tech Monthly Oct 2026

MORGAN STANLEY MUFG SECURITIES CO., LTD.+

Suzune Tamura, CFA
Equity Analyst
Suzune.Tamura@morganstanleymufg.com +81 3 6836-8891

Kazuo Yoshikawa, CFA
Equity Analyst
Kazuo.Yoshikawa@morganstanleymufg.com +81 3 6836-8408

SEMICONDUCTOR PRODUCTION EQUIPMENT

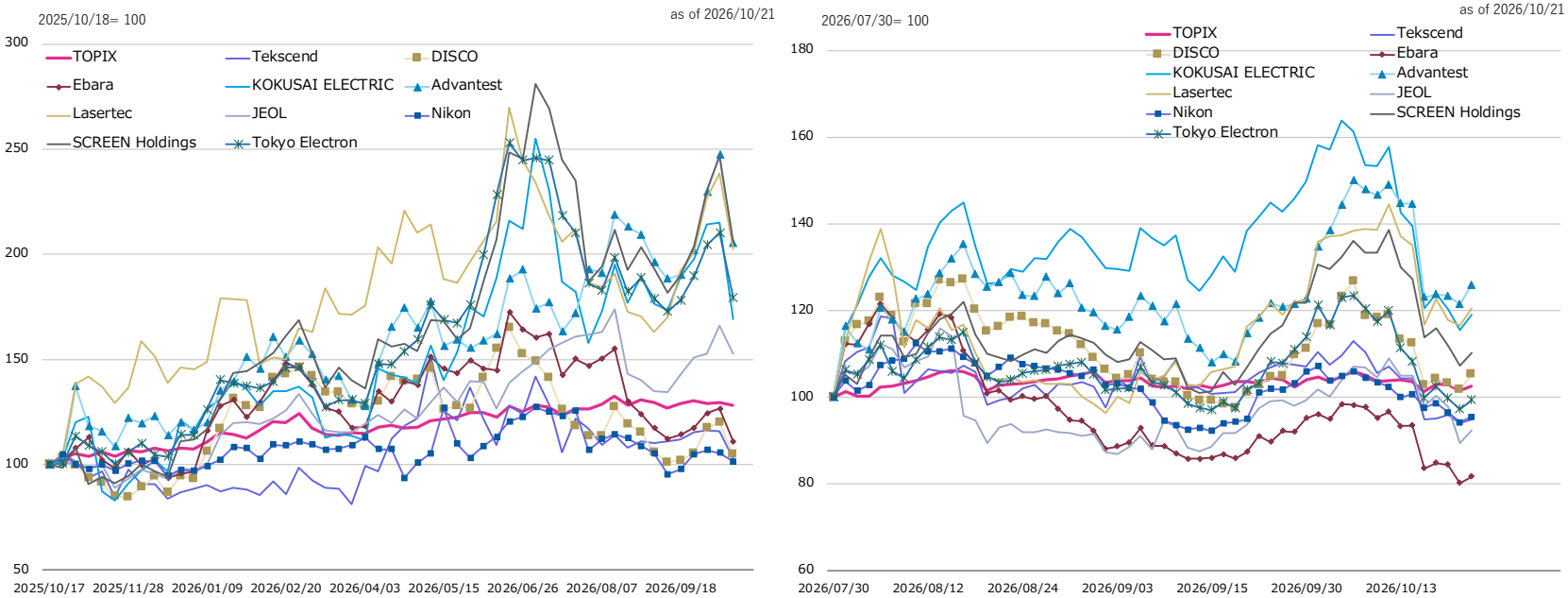
Japan
Industry View **Attractive**

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Stock price performance



Source: FactSet data, Morgan Stanley Research

Stock performance and valuations

			Rating	Share price		Performance				Valuation																				
				(LC)	(LC)					Cons PE (x)			MSe PE (x)			Cons EV/EBITDA (x)			MSe EV/EBITDA (x)			Cons P/B (x)			MSe P/B (x)			Cons Div. yield		
			MS	Last close	MS PT	YTD	3m	1m	9/20 ~	F1	F2	F3	F1	F2	F3	F1	F2	F3	F1	F2	F3	F1	F2	F3	F1	F2	F3	F1	F2	F3
Semiconductor Production Equipment (Japan)																														
8035	JP	Tokyo Electron	OW	10,085	13,600	46.9%	-22.5%	-5.1%	-4.1%	29.4	20.9	16.8	27.2	18.4	15.8	20.4	15.0	12.4	18.9	13.0	11.2	9.4	7.7	6.4	9.8	8.2	6.7	1.7%	2.3%	2.9%
7735	JP	SCREEN Holdings	OW	12,805	17,000	68.0%	-22.4%	0.0%	0.0%	20.4	15.3	12.9	18.7	13.5	11.3	12.6	9.7	8.2	11.4	8.3	6.9	4.3	3.6	3.1	4.2	3.5	2.8	1.5%	2.0%	2.4%
6525	JP	Kokusai Electric	OW	7,394	9,300	34.6%	-16.0%	-16.8%	-8.8%	29.6	19.9	15.2	29.2	19.1	17.4	17.4	12.2	9.7	17.1	11.7	10.7	6.6	5.4	4.4	6.6	5.6	4.9	0.9%	1.3%	1.7%
6146	JP	DISCO	OW	52,630	67,000	9.3%	-18.8%	0.4%	0.4%	30.1	24.3	20.4	26.3	21.2	18.2	20.5	16.9	14.5	18.1	14.7	12.7	8.3	6.9	5.9	8.1	6.7	5.5	1.3%	1.6%	2.1%
6857	JP	Advantest	OW	33,870	45,000	72.5%	23.1%	5.7%	5.7%	36.2	27.8	22.9	34.9	21.3	16.6	27.6	21.2	17.5	26.4	15.6	12.2	20.1	13.3	9.4	20.5	12.3	7.9	0.3%	0.6%	0.8%
6361	JP	Ebara	OW	3,970	6,400	7.8%	-26.3%	-8.2%	-2.2%	18.0	14.8	12.2	16.5	12.4	10.8	11.1	8.6	7.2	12.8	8.6	7.4	3.2	2.8	2.5	3.2	2.7	2.4	1.9%	2.3%	2.9%
6920	JP	Lasertec	UW	39,190	34,000	32.2%	-6.4%	0.3%	0.3%	34.8	25.7	21.7	36.9	29.5	24.1	24.5	18.3	15.2	25.5	20.5	16.8	11.2	8.6	6.7	11.5	8.9	6.9	0.9%	1.3%	1.5%
6951	JP	JEOL	UW	6,874	7,000	36.6%	-14.4%	-5.4%	-1.4%	16.0	13.3	12.3	16.1	14.5	12.5	9.7	7.8	7.5	10.7	8.7	7.6	2.1	1.9	1.8	2.2	2.0	1.8	1.9%	2.3%	2.4%
7731	JP	Nikon	UW	1,724	1,100	-1.2%	-21.6%	-1.3%	-1.3%	50.8	26.0	19.6	NA	19.0	NA	12.1	9.3	8.2	NA	8.3	NA	1.0	0.9	0.9	NA	0.9	NA	1.2%	1.9%	2.0%
429A	JP	Tekscend	EW	3,385	4,600	11.7%	-4.8%	-10.2%	-2.2%	12.8	11.9	10.4	11.8	11.0	8.9	5.6	4.9	4.2	5.5	4.6	3.8	1.7	1.6	1.4	1.7	1.5	1.4	2.1%	2.2%	2.5%
(Not covered)																														
PLAB	US	Photronics	NA	29	NA	-10.6%	-1.1%	-1.7%	-1.7%	14.2	14.0	13.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Semiconductor Capital Equipment (North America)																														
LRCX	US	Lam Research	OW	263	385	53.9%	-14.1%	-8.6%	-1.6%	27.6	21.8	18.4	26.2	20.2	17.6	22.6	18.2	15.6	21.6	17.0	14.9	17.7	12.2	9.4	NA	NA	NA	0.5%	0.5%	0.6%
AMAT	US	Applied Materials	EW	405	563	57.6%	-23.0%	-8.9%	-1.9%	31.6	21.6	16.5	31.7	20.7	16.4	27.3	18.1	14.4	27.8	17.5	14.0	11.7	9.1	7.3	11.5	8.9	7.0	0.5%	0.5%	0.6%
KLAC	US	KLA Corp	OW	162	227	33.1%	-22.1%	-8.6%	-1.6%	29.3	23.8	19.8	28.1	21.7	18.9	24.2	19.7	16.8	23.0	18.2	16.0	22.9	19.8	13.8	24.0	19.0	14.2	0.6%	0.7%	0.8%
TER	US	Teradyne	EW	337	397	73.9%	0.8%	-9.4%	-1.4%	36.5	28.4	21.5	36.4	28.3	23.8	29.5	22.3	16.8	28.9	22.9	19.6	13.4	10.0	7.7	13.9	10.8	8.0	0.2%	0.2%	0.2%
Semiconductors (Japan)																														
285A	JP	Kioxia Holdings	OW	13,140	37,000	277.8%	-24.4%	-27.8%	-8.8%	3.7	2.7	2.4	4.3	3.7	4.1	2.7	2.0	1.8	2.9	2.6	2.8	3.4	1.8	1.1	4.2	2.1	1.5	1.6%	2.9%	5.2%
7741	JP	HOYA Corp	EW	25,990	29,000	9.7%	3.1%	15.0%	15.0%	31.0	27.0	23.4	31.3	27.3	24.3	20.4	18.1	15.8	20.3	17.9	15.6	8.9	8.3	7.7	8.8	7.4	6.3	1.3%	1.5%	1.7%
Semiconductors (North America)																														
NVDA	US	NVIDIA Corp	OW	216	300	16.1%	6.5%	-2.6%	-1.6%	23.3	13.7	10.1	23.5	14.4	9.0	19.1	11.4	8.9	19.3	11.4	8.0	16.8	9.1	5.5	17.2	9.7	6.0	0.4%	0.5%	0.5%
Mid Small Cap/Manufacturer (Japan):																														
7729	JP	Tokyo Seimitsu	OW	16,845	21,000	51.7%	-1.2%	-2.8%	-1.8%	21.0	16.6	14.2	20.6	16.0	15.2	12.7	10.3	9.0	12.7	10.0	9.3	3.3	2.9	2.6	3.3	2.9	2.6	1.9%	2.4%	2.9%
6315	JP	Towa	EW	2,065	2,500	-4.0%	-26.0%	-3.8%	-1.8%	17.7	13.7	11.8	18.9	13.8	13.0	10.3	8.2	7.1	9.9	7.6	7.2	2.1	1.9	1.6	2.0	1.8	1.6	1.2%	1.4%	1.5%
6871	JP	Micronics Japan	OW	12,530	16,000	77.7%	-10.3%	-6.4%	-1.4%	20.3	15.8	11.9	20.6	15.7	12.3	11.7	8.4	6.7	11.7	8.4	6.7	5.8	4.6	3.6	5.7	4.5	3.5	1.5%	2.0%	2.7%
3110	JP	Nitto Boseki	OW	2,912	4,600	42.7%	-4.1%	-5.5%	-1.5%	23.4	17.7	13.1	24.3	17.3	12.8	12.8	9.9	7.6	13.1	9.7	7.5	2.9	2.6	2.3	2.9	2.5	2.2	1.1%	1.4%	1.9%

Note: Data as of October 20 market close. Prices and price targets are in Japanese yen except for Teradyne, Applied Materials, Lam Research, KLA and Photronics, which are in US dollars. Tokyo Seimitsu, Towa, Micronics Japan and Nitto Boseki are covered by Yoshihito Hasegawa. Koixia Holdings is covered by Kazuo Yoshikawa. Teradyne, Applied Materials, Lam Research, and KLA are covered by Shane Brett; NA = No data found on FactSet/Morgan Stanley Research. Photronics is not covered; Japan Semiconductors: In-Line
Mid Small Cap/Manufacturer (Japan): In-Line, Semiconductor Capital Equipment (North America): In-Line
Source: FactSet, Morgan Stanley Research; Cons = based on FactSet Consensus; MSe = Morgan Stanley Research estimates

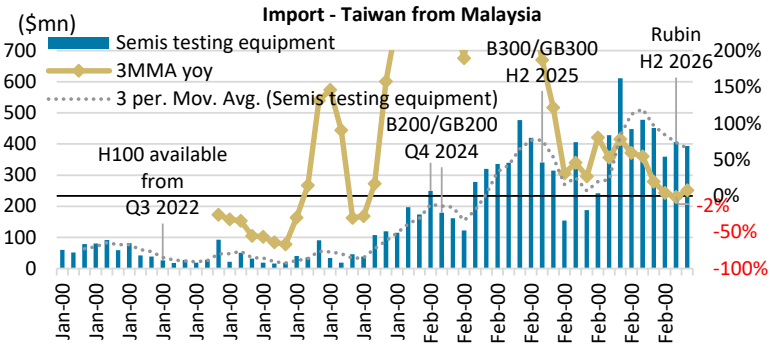
Jul-Sep 2026 Results Preview

Focus KPI	Focus KPI Surprise	Likely impact to consensus EPS*
KOKUSAI ELECTRIC	6525.T	
Guidance hike	— In-line	▲ Modest revision higher
• Announced major guidance hike at Apr-Jun results; expect only small upward revision at Jul-Sep results.		
SCREEN Holdings	7735.T	
SPE segment margin	▲ Very likely upside surprise	▲ Modest revision higher
• Forecast recovery in SPE margin, from 15% in 1Q to 28% in 2Q, and expect prospects to recover for longer-term improvement in margins. • Also expect slight full-year guidance hike, driven mainly by 2H.		
Advantest	6857.T	
Full-year earnings and capacity plan	▲ Likely upside surprise	▲ Modest revision higher
• Still expect upward revision to guidance. • Plan for SoC tester capacity may also be updated.		
Tekscend Photomask	429A.T	
Progress vs. full-year guidance	▲ Likely upside surprise	▲ Modest revision higher
• Expect solid progress vs. full-year guidance, tracking above plan. • Do not anticipate full-year guidance hike.		
DISCO	6146.T	
Shipments plan	— In-line	— Largely unchanged
• Expect shipments/guidance in line with our estimates. • Increase in production support staff may be positive catalyst.		
Lasertec	6920.T	
Revisions to full-year order guidance	▼ Very likely downside surprise	— Largely unchanged
• Despite high expectations, expect only a small upward revision for order guidance.		
Tokyo Electron	8035.T	
2H guidance	▲ Very likely upside surprise	▲ Modest revision higher
• Expect full-year OP guidance for ¥1.1trn, with prospects for profit guidance to top consensus. • Also look for updates on cryo and other new products.		

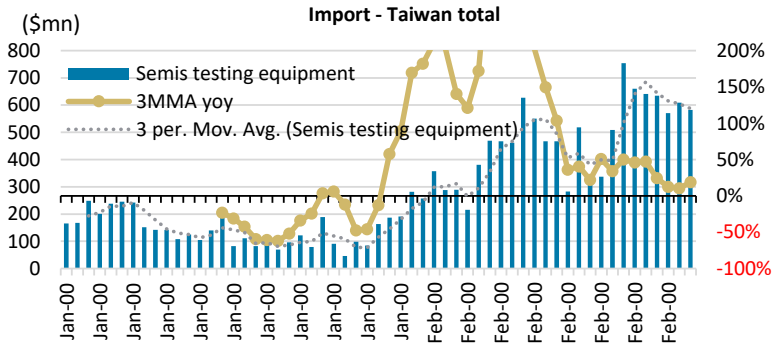
*Direction of next 12-month consensus EPS; Source: Company data, Morgan Stanley Research

Test-related equipment import/テスト関連輸入統計

Taiwan/台湾

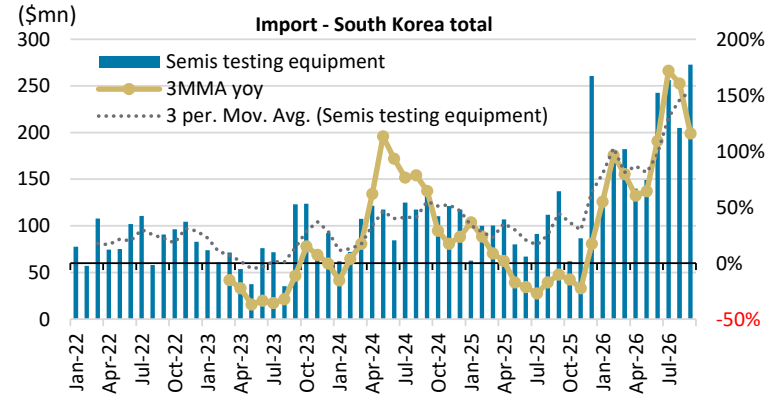


Source: Ministry of Economic Affairs, R.O.C., Morgan Stanley Research



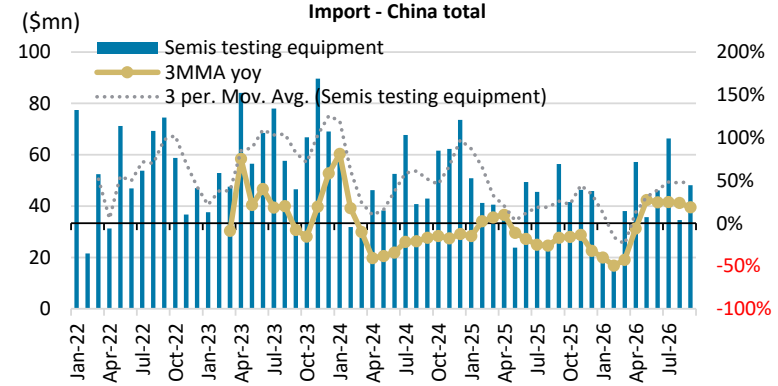
Source: Ministry of Economic Affairs, R.O.C., Morgan Stanley Research

South Korea/韓国



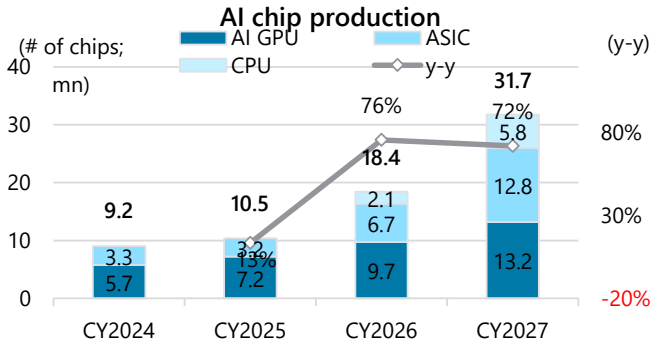
Source: Korea Customs Service, Morgan Stanley Research

China/中国

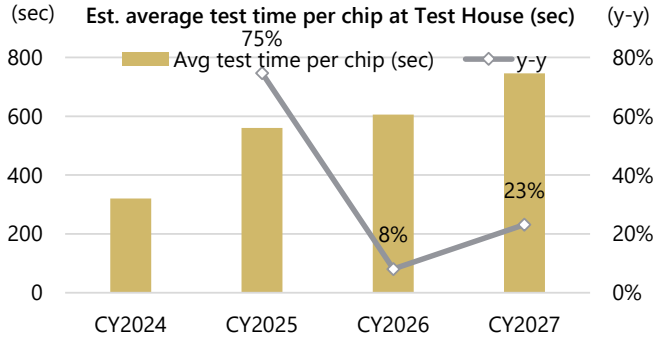


Source: General Administration of Customs of the People's Republic of China, Morgan Stanley Research

Bottom-up testing demand / ボトムアップでテスト需要を計算



Source: Morgan Stanley Research estimates, calculated by our team based on Morgan Stanley forecasts



Source: Morgan Stanley Research estimates, calculated by our team based on Morgan Stanley forecasts of a Taiwan test house

	CY2023	CY2024	CY2025	CY2026	CY2027
Compute TEST TAM (2024=100)		**100**	**198**	**377**	**799**
Intensity factor y-y		0%	75%	8%	23%
x Volume factor y-y		0%	13%	76%	72%
Δcompute TEST TAM			**+98**	**+179**	**+422**
y-y			**NA**	**82%**	**137%**
Our Asia team's estimates on final test time at KYEC					
H-series		350	350	350	350
B-series with GDDR7			350	350	350
B-series with HBM			850	1,000	850
R-series				1,000	1,275
G CPU			300	300	300
V CPU				700	700
TPU blended			186	340	450
GOOGL CPU blended				300	300

Source: Morgan Stanley Research estimates

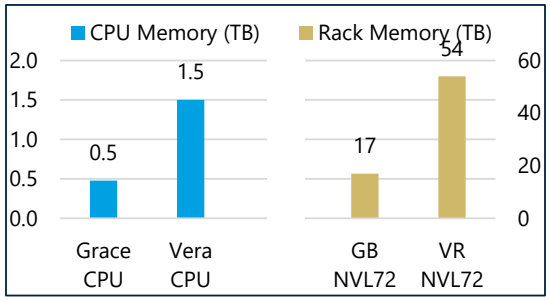
Our forecasts of Advantest's Compute/Communication/アドバンテストのコンピュート/通信向け弊社予想

(JPY mn)	24/3	25/3	26/3	27/3	28/3	29/3
Computing/Communication				**MSe**	**MSe**	**MSe**
Computing/Communication	**147,360**	**396,360**	**729,030**	**1,307,000**	**2,289,000**	**2,975,000**
USD mn	***1,030***	***2,591***	***4,860***	***8,434***	***14,766***	***19,196***
y-y	NA	151%	88%	74%	75%	30%
V93000 EXA Scale price (¥mn) (asmp.)	243	260	255	264	264	264
$mn	***1.7***	***1.7***	***1.7***	***1.7***	***1.7***	***1.7***
y-y	*NA*	*0%*	*0%*	*0%*	*0%*	*0%*
Implied units (unit)	**606**	**1,524**	**2,859**	**4,961**	**8,686**	**11,292**
y-y	NA	151%	88%	74%	75%	30%

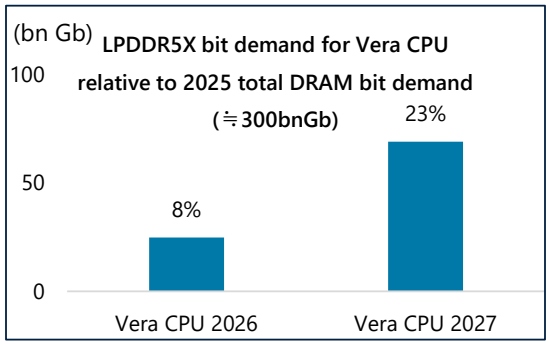
Source: Company data, Morgan Stanley Research; MSe = Morgan Stanley Research estimates

Memory supply/demand related to AI / メモリのAI関連需給

Sizable memory consumption for latest AI devices



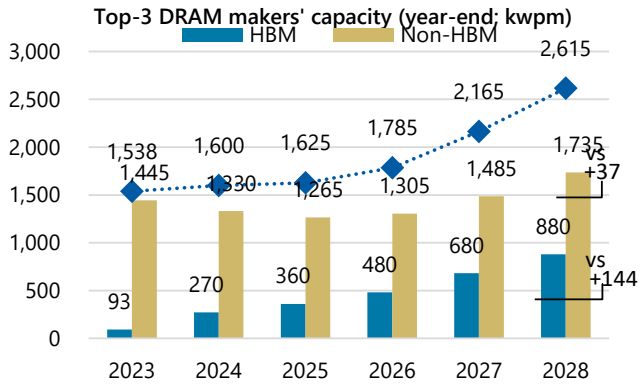
Source: Nvidia, Morgan Stanley Research



Source: Trendforce, Morgan Stanley Research estimates

Bottom-up HBM demand (TB)					
	2024	2025	2026	2027	
TOTAL	**1,011**	**1,946**	**3,765**	**5,349**	**2027**
y-y		*92%*	*94%*	*42%*	*2.7x* vs 2025
AI GPU	760	1,602	2,477	2,477	
ASIC	239	337	1,288	2,872	
Others	13	7	0	0	

Note: calculated based on Morgan Stanley Research estimates on CoWoS allocation; includes AI devices such as AI GPUs, AI ASICs and AI CPUs from international AI semi players
Source: Morgan Stanley Research estimates



Source: Trendforce, Morgan Stanley Research estimates

HBM4 vs 4E, 8Hi vs 12Hi

		HBM4	HBM4E	4E vs 4
Die capacity	Gb/die	24	32	33%
Die width	mm	12.8	13.7	(=√186.6)
Die height	mm	11.0	13.7	(=√186.6)
Die area	mm^2	140.8	186.6	***33%***
DPW	die/wafer	432	318	***-26%***
HBM4 Yield scenarios				
95.0%		*95.0%*	93.5%	-1.6%
# of KGD		410	297	***-28%***
90.0%		*90.0%*	87.0%	-3.3%
# of KGD		388	276	***-29%***
85.0%		*85.0%*	80.7%	-5.1%
# of KGD		367	256	***-30%***
80.0%		*80.0%*	74.5%	-6.9%
# of KGD		345	236	***-32%***

Layers	**Hi**	**8**	**12**	
Die stacking Yield scenarios				**12Hi vs 8Hi**
99.4%	/layer	*95.0%*	92.6%	-3%
98.7%	/layer	*90.0%*	85.4%	-5%
98.0%	/layer	*85.0%*	78.4%	-8%
97.3%	/layer	*80.0%*	71.6%	-11%
95.6%	/layer	*70.0%*	58.6%	-16%
93.8%	/layer	*60.0%*	46.5%	-23%

Note: HBM4 die size is based on JEDEC's standard. HBM4E die size increase vs 4 assumed as equal to die capacity growth but could be higher than that due to peripheral circuit increase. KGD yield for HBM4E is calculated under the assumption of yield density/area is the same with HBM4 assumption. Die stacking yield assumes per layer yield stay the same across different heights, which in reality should not be the case.
Source: Trendforce, Morgan Stanley Research estimates

Progress seen toward High-NA EUV adoption / High-NA EUV採用の動きが進展

Major players announced High-NA adoption roadmap /
主要半導体メーカーがHigh-NA EUVの採用時期を公表

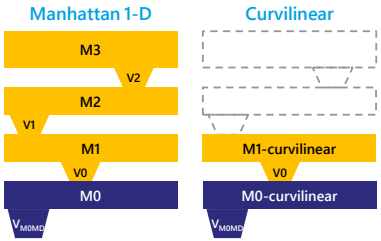
Announced in 2022 / 22年公表
- **Intel:** 2026~ (Intel 18A)

Announced in Sep 2026 / 26年9月公表
- **Samsung:** 2028~ (DRAM)
- **TSMC:** 3030~

Source: Company comments, Morgan Stanley Research

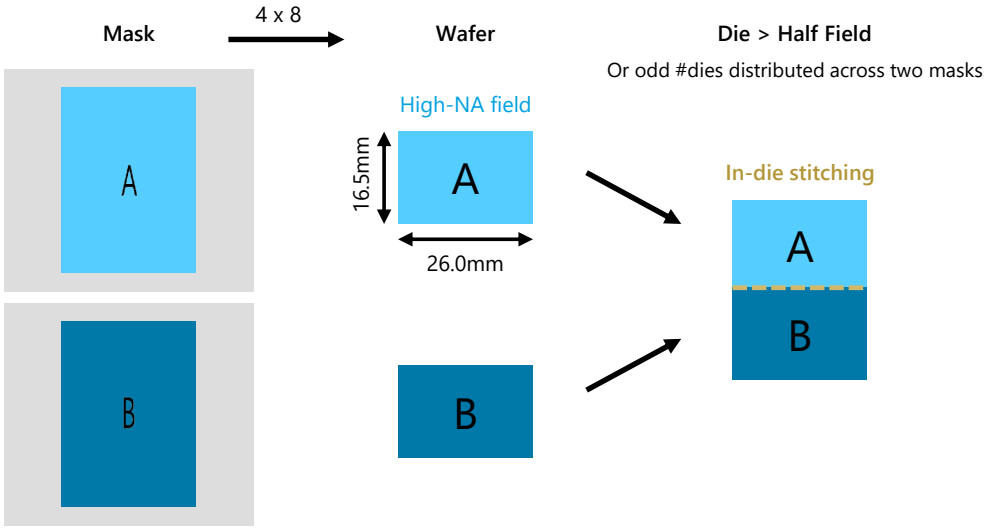
Merits of adopting HNA / HNA導入のメリット

- High resolution and image contrast /高い解像度とコントラスト
- Process simplification /プロセスステップ数削減
- Design flexibility y/ デザインの柔軟性



Source: imec, Morgan Stanley Research

High-NA EUV adoption leading to the need for stitching and large masks /
High-NA EUVの導入にあたりスティッチング技術やラージマスクへの移行が求められている



Source: imec, ASML, Morgan Stanley Research

Issues for large mask / 大判マスクの課題

■**Difficulty:** Materials>front-end process>e-beam tools> back-end tools
■**難易度:** 材料>前工程プロセス>電子ビーム描画装置>後工程装置

■ **Price:** LNA EUV HVM mask ~$500k/layer vs Large mask at least >$1mn /layer
■**価格:** LNA EUVマスク ~$500k/枚 vs ラージマスク 最低でも>$1mn/枚

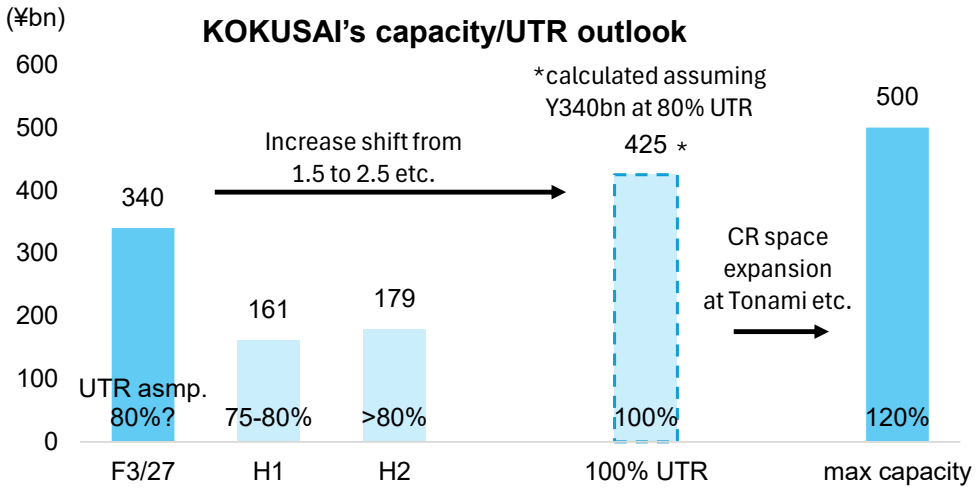
KOKUSAI ELECTRIC (6525): Visit to Toyama and Tonami Sites

- **Utilization:** UTR is currently in the high-70% range and is expected to exceed 80% in 2H.
- **稼働：** 足元の稼働率は70%台後半で、下期には80%以上へ上昇する見通し

- **Capacity:** Currently converting existing space at its Tonami facility into cleanroom space, with completion expected in F3/28, which is to increase production by 20%.
生産キャパ： 砺波事業所の既存スペースをクリーンルームへ改装中で、来期に完成予定。新スペースの立ち上げにより、生産能力は現状の100%を基準に120%まで拡大見込み

- **LT:** equipment lead times have extended from 6 to 8 months, primarily due to component procurement delays, with supplier capacity remaining a key bottleneck.
- **LT:** 装置リードタイムの長期化（6か月→8か月）は主に部材調達に起因しており、サプライヤーの供給能力が引き続き制約要因

- **Productivity:** KOKUSAI is pursuing gradual productivity improvements in line with its roadmap through the early 2030s, with progress currently on track.
- **生産性：** 2030年代前半までのロードマップに沿って漸進的な改善を進めており、進捗は計画通り

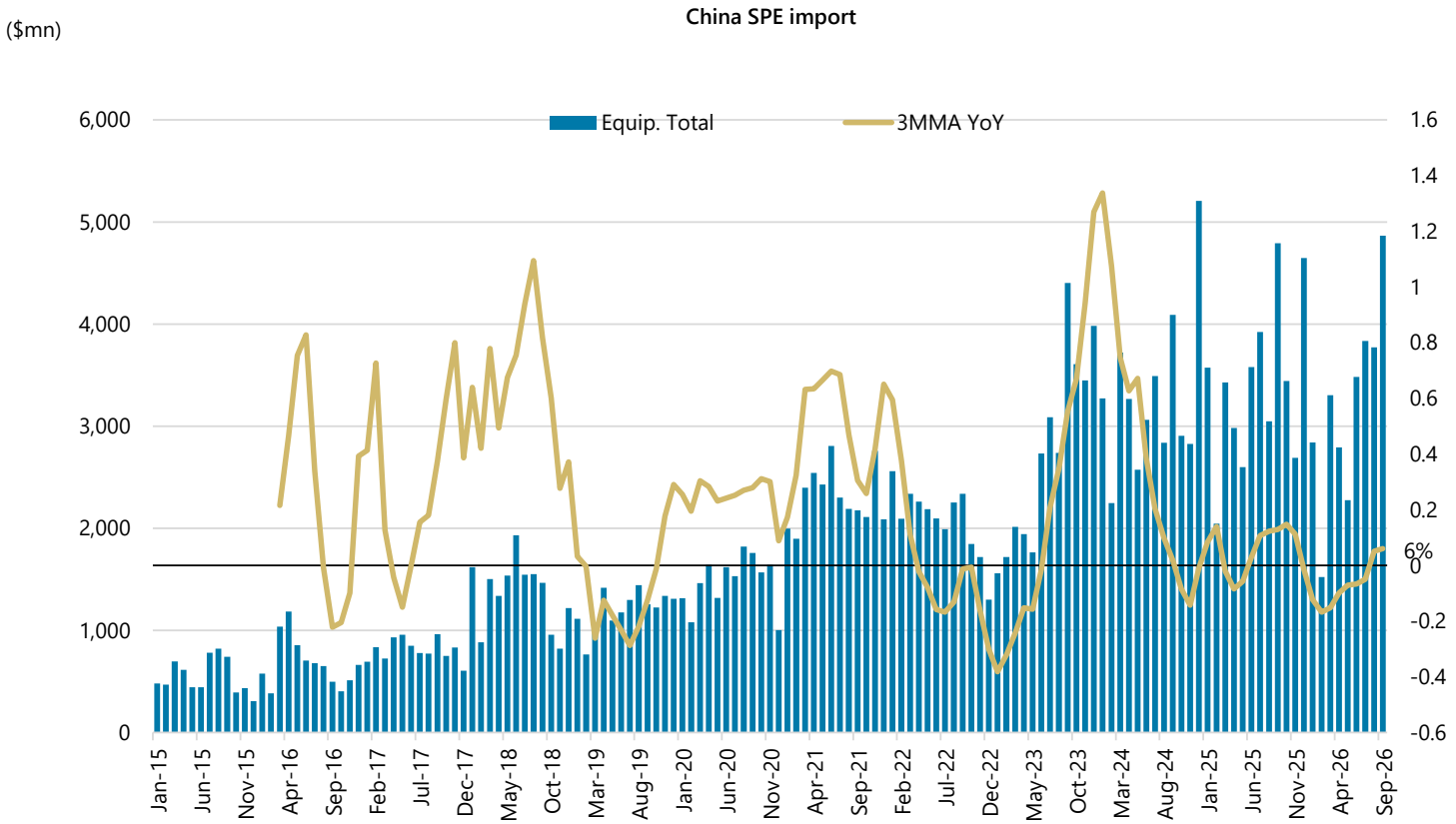


Source: Company comments, Morgan Stanley Research



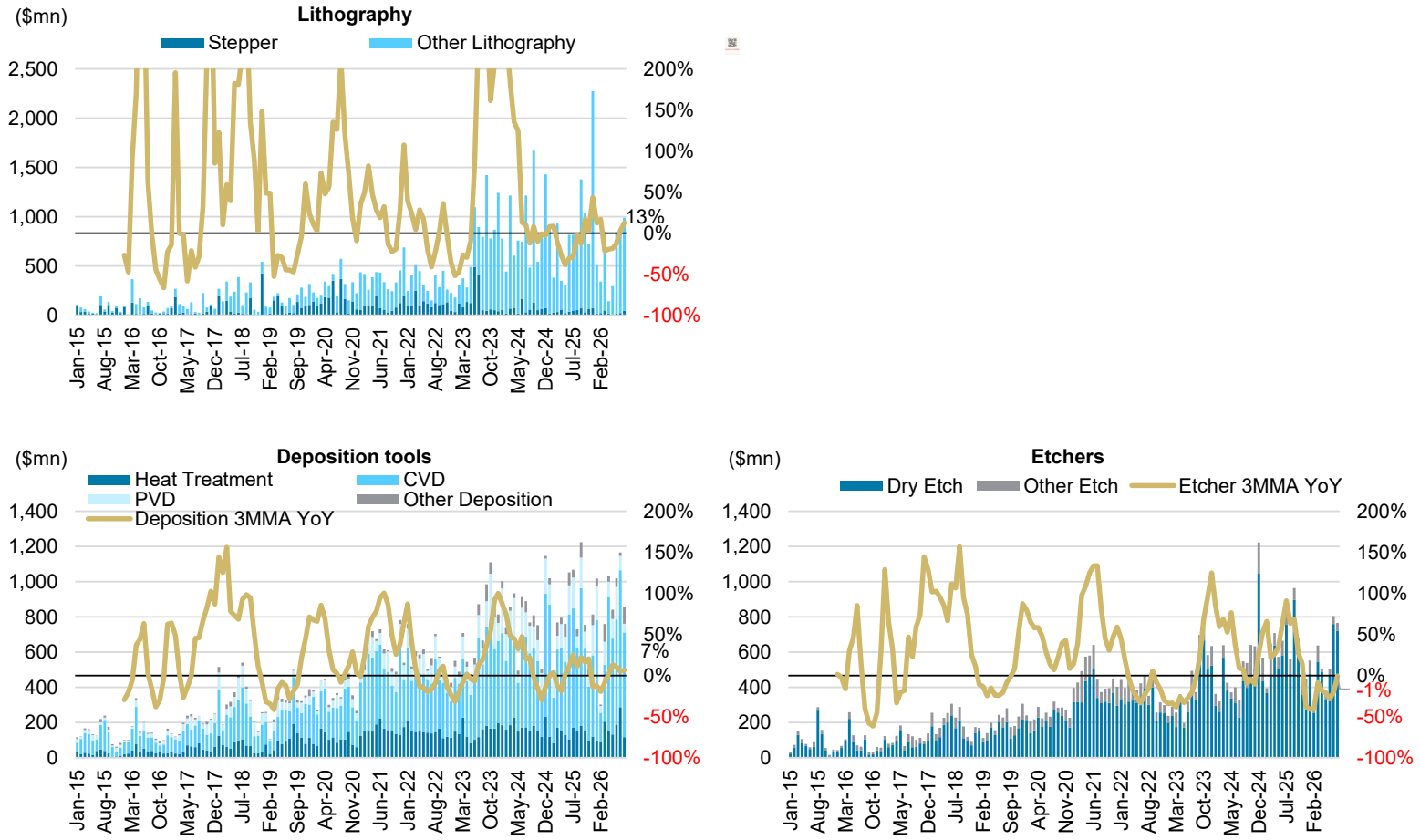
Source: Company comments, Morgan Stanley Research

China monthly SPE import data: Sep +6% YoY, 3MMA



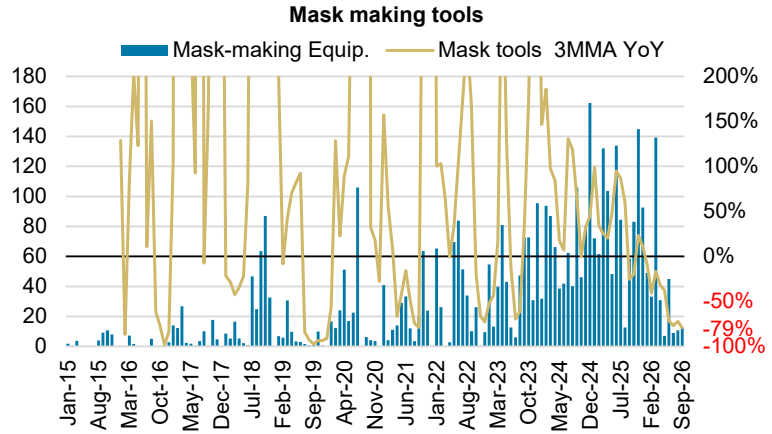
Note: Data excludes handling equipment and components
Source: General Administration of Customs of the People's Republic of China, Morgan Stanley Research

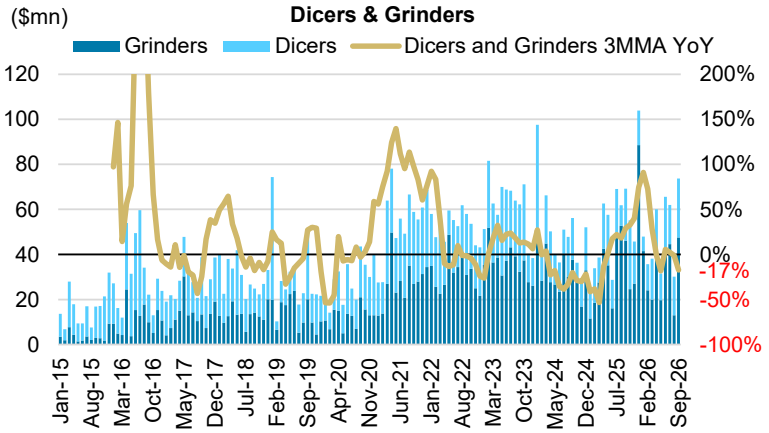
China monthly SPE import data

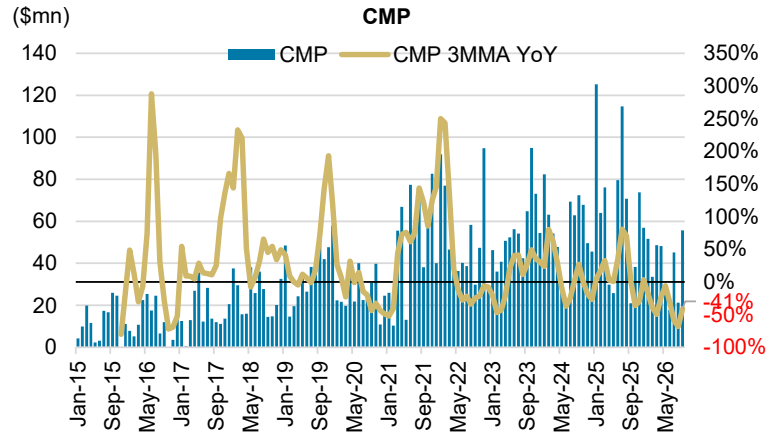


Source: General Administration of Customs of the People's Republic of China, Morgan Stanley Research

China monthly SPE import data

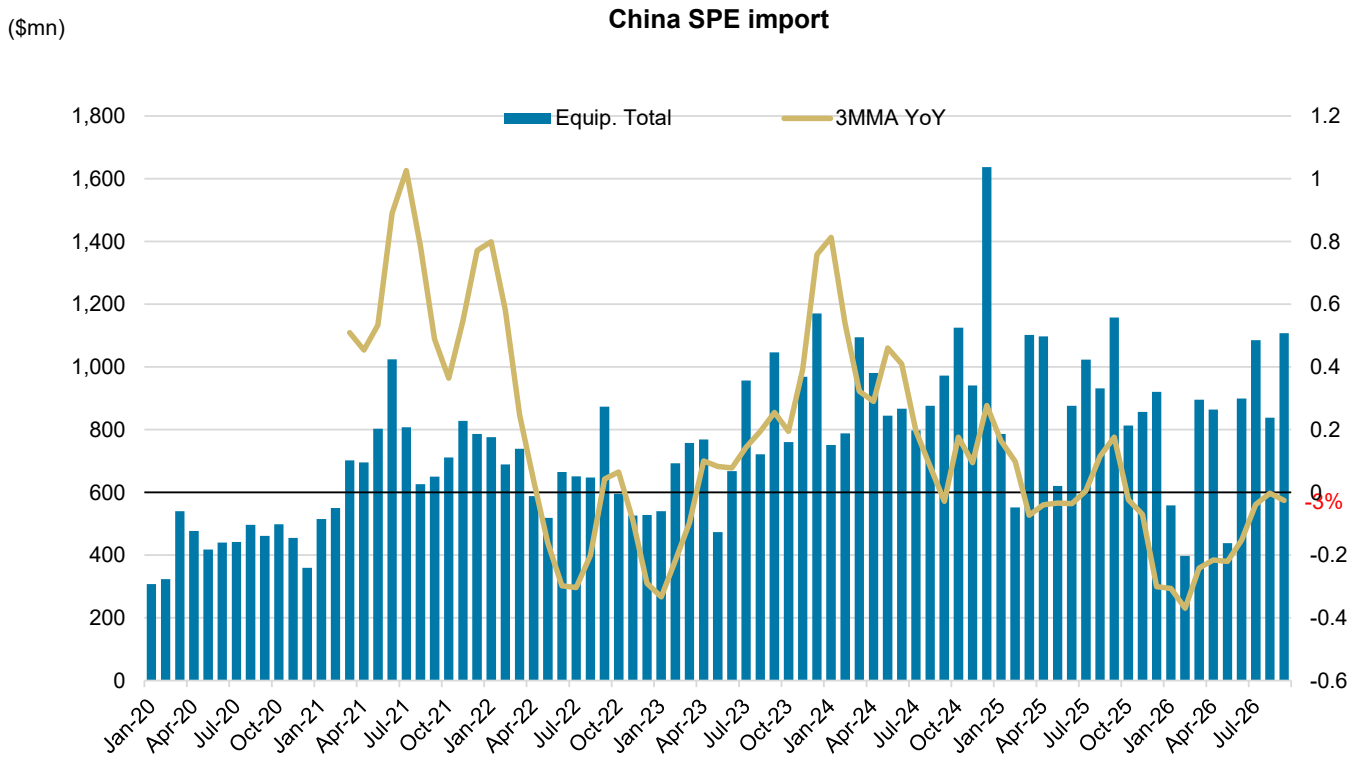






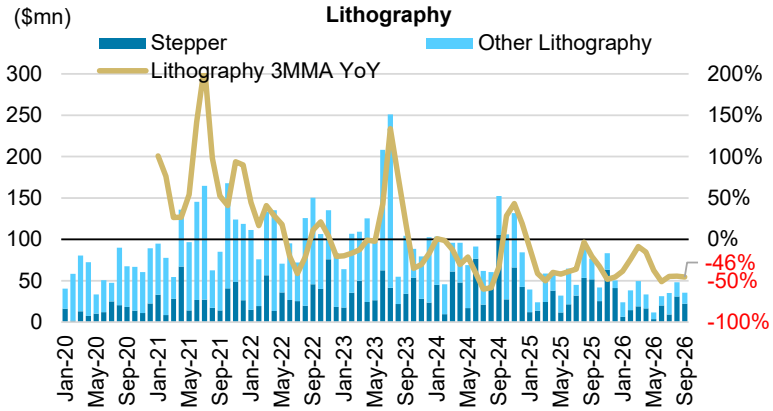
Source: General Administration of Customs of the People's Republic of China, Morgan Stanley Research

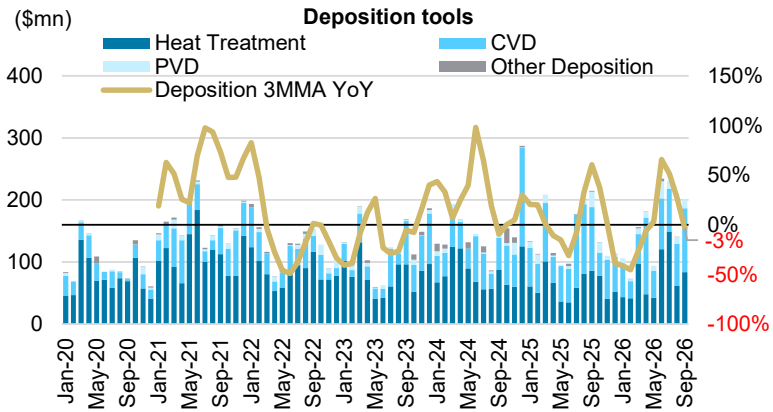
China monthly SPE imports from Japan: Sep -3% YoY, 3MMA

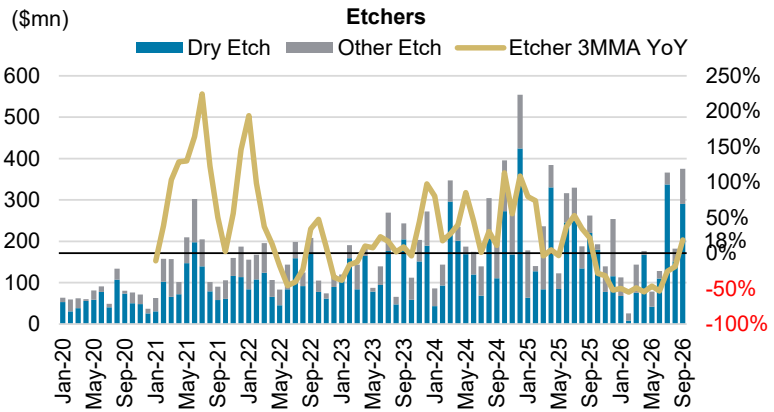


Note: Data excludes handling equipment and components
Source: General Administration of Customs of the People's Republic of China, Morgan Stanley Research

China monthly SPE imports from Japan

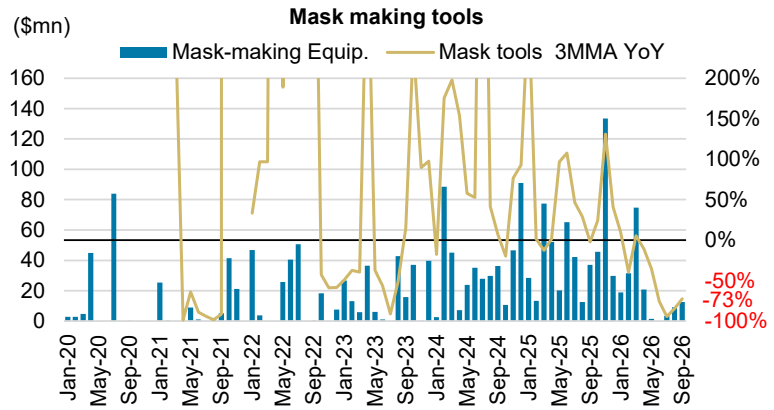


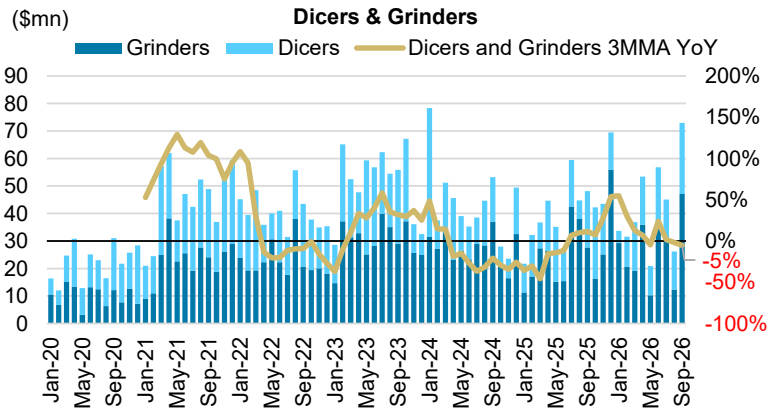


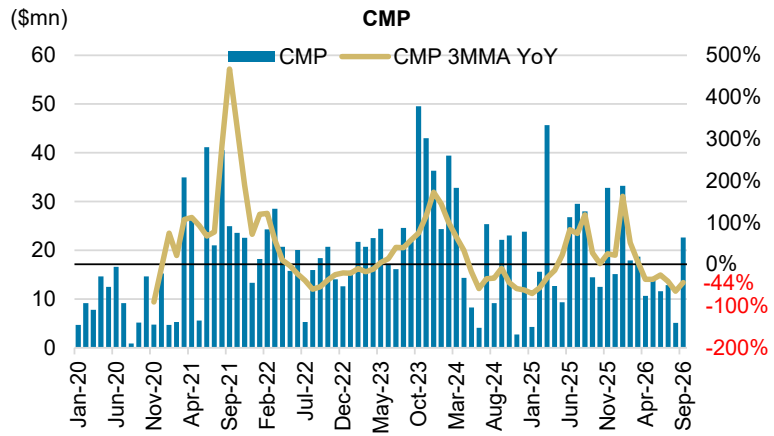


Source: General Administration of Customs of the People's Republic of China, Morgan Stanley Research

China monthly SPE imports from Japan

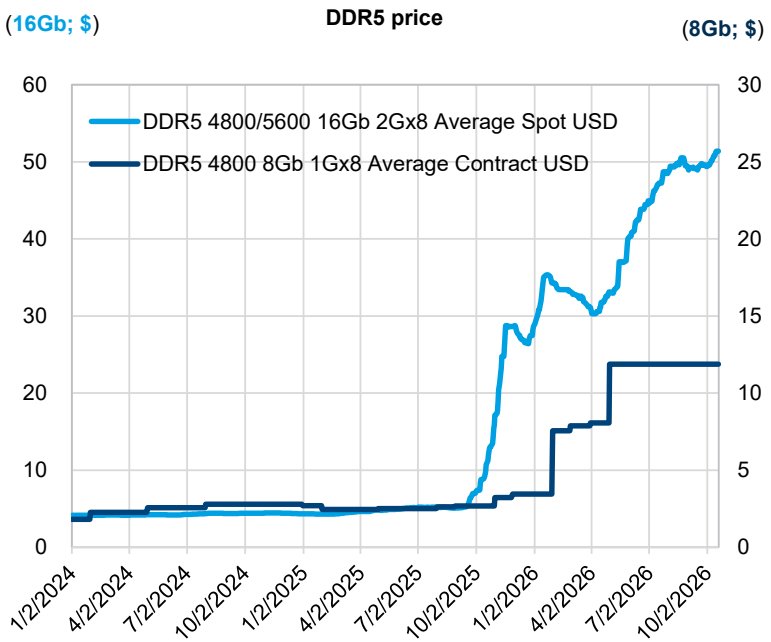


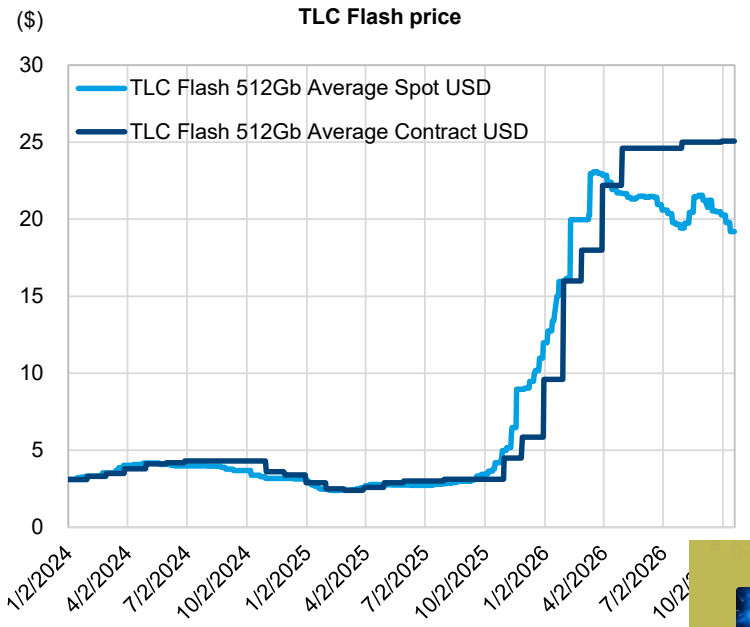




Source: General Administration of Customs of the People's Republic of China, Morgan Stanley Research

Memory price trends

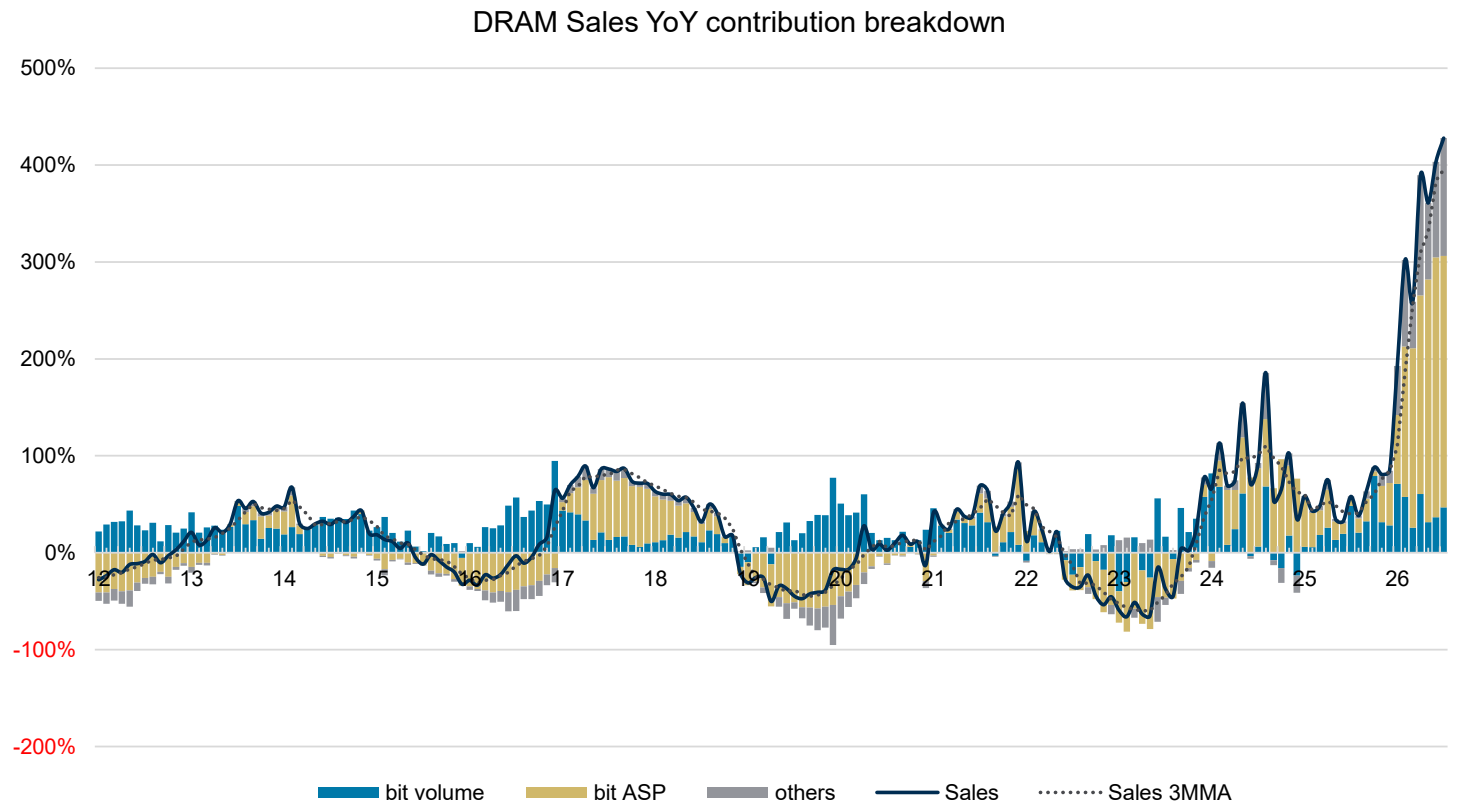




Source: FactSet, Morgan Stanley Research

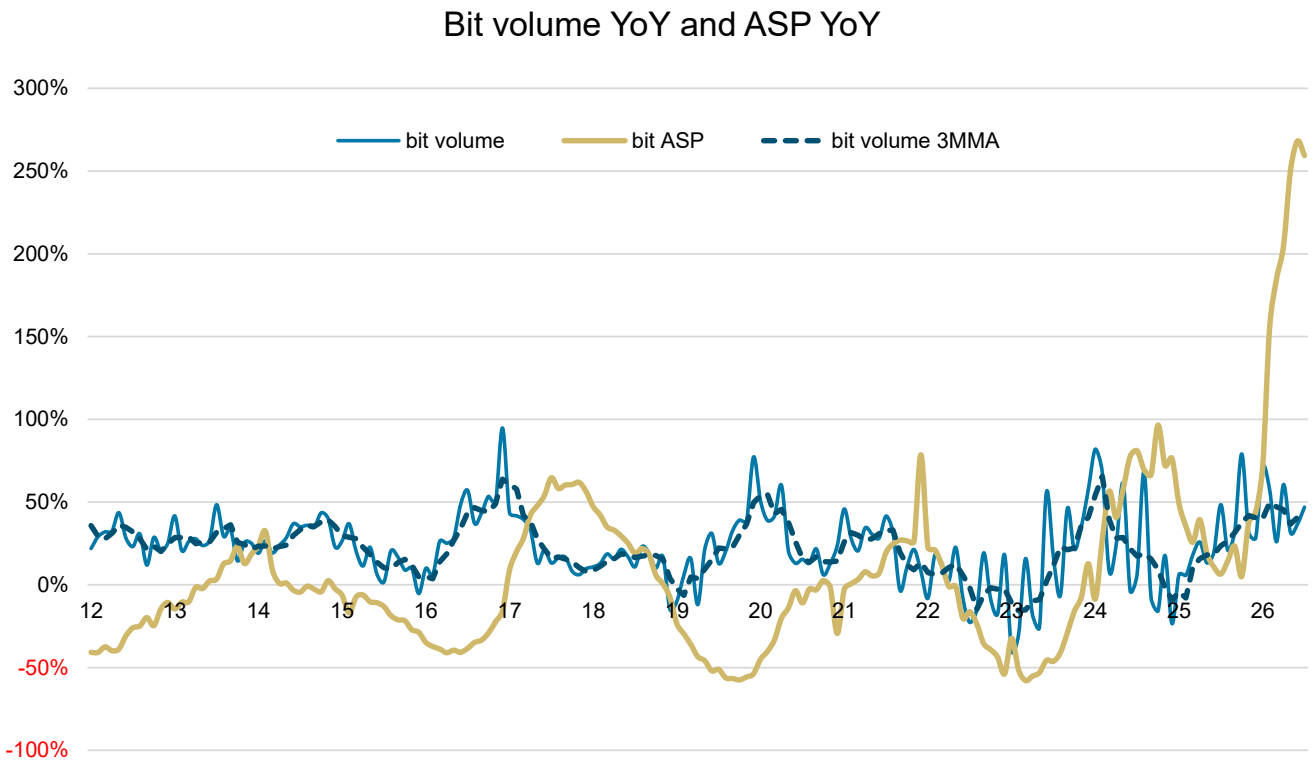


DRAM YoY growth



Source: WSTS, Morgan Stanley Research

DRAM bit shipment and ASP YoY growth



Source: WSTS, Morgan Stanley Research

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(as of September 30, 2026)

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	Coverage Universe		Investment Banking Clients (IBC)			Other Material Investment Services Clients (MISC)	
Stock Rating Category	Count	% of Total	Count	% of Total IBC	% of Rating Category	Count	% of Total Other MISC
Overweight/Buy	1599	43%	455	48%	28%	783	44%
Equal-weight/Hold	1563	42%	394	42%	25%	763	43%
Not-Rated/Hold	2	0%	1	0%	50%	1	0%
Underweight/Sell	570	15%	96	10%	17%	227	13%
Total	3,734		946			1774	

Data include common stock and ADRs currently assigned ratings. Investment Banking Clients are companies from whom Morgan Stanley received investment banking compensation in the last 12 months. Due to rounding off of decimals, the percentages provided in the "% of total" column may not add up to exactly 100 percent.

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INDUSTRY COVERAGE: Semiconductor Production Equipment

COMPANY (TICKER)	RATING (AS OF)	PRICE* (10/21/2026)
Kazuo Yoshikawa, CFA		
JEOL (6951.T)	U (10/19/2026)	¥7,076
Suzune Tamura, CFA		
Advantest (6857.T)	O (01/17/2024)	¥34,440
DISCO (6146.T)	O (07/07/2023)	¥53,570
Ebara (6361.T)	O (12/04/2024)	¥4,003
KOKUSAI ELECTRIC (6525.T)	O (12/19/2025)	¥7,361
Lasertec (6920.T)	U (07/28/2025)	¥39,770
Nikon (7731.T)	U (08/08/2023)	¥1,748
SCREEN Holdings (7735.T)	O (11/13/2025)	¥12,910

Tekscend Photomask (429A.T)	E (11/18/2025)	¥3,390
Tokyo Electron (8035.T)	O (12/19/2025)	¥10,160

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* Historical prices are not split adjusted.

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