Morgan Stanley | RESEARCH

IDEA

May 28, 2026 08:00 AM GMT

Greater China Semiconductors | Asia Pacific

Old Memory: Upside Surprise Ahead

We think wider supply/demand will boost earnings. SLC NAND and Si Cap should offer re-rating potential. We upgrade Winbond and Nanya to OW.

MORGAN STANLEY TAIWAN LIMITED+

Daniel Yen, CFA
Equity Analyst
[illegible] [illegible]

Charlie Chan
Equity Analyst
[illegible] [illegible]

MORGAN STANLEY ASIA LIMITED+

Daisy Dai, CFA
Equity Analyst
Daisy.Dai@morganstanley.com +852 2848-7310

MORGAN STANLEY TAIWAN LIMITED+

Tiffany Yeh
Equity Analyst
Tiffany.Yeh@morganstanley.com [illegible]

MORGAN STANLEY ASIA LIMITED+

Ethan Jia
Research Associate
Ethan.Jia@morganstanley.com [illegible]

Key Takeaways

- We reduce our supply assumptions from Micron in the near term and for Hynix in the next few quarters.
- We believe DDR4 enterprise demand from both eSSD and datacenters is getting stronger.
- Our DDR4 supply/demand model suggests a 19-20% gap for 2H26 vs. the prior 14%, and an 18-20% gap for 2027-28.
- SiCap and SLC NAND (for servers) could be a potential re-rating factor.
- NOR is seeing more tightness on mature foundry shortages.

We had been too conservative; supply/demand gap widening in 2H: We downgraded Winbond and Nanya in March 2026, citing a potentially narrowing supply/demand gap into 2H26 and moderating pricing hikes. We now believe the gap could widen into 2H. We also expect rising CPU server demand to drive enterprise demand growth into 2027. As a result, we upgrade both stocks back to OW.

Less supply and rising demand = stronger pricing: We believe the recent Micron (covered by Joseph Moore) announcement (link) will mean reduced supply in the next 2-4 quarters, reflecting equipment movement from Taiwan to the US. At the same time, we think Hynix's (covered by Shawn Kim) Wuxi capacity for D4/LPD4 will be further reduced for DDR5 back-end capacity. We thus expect DDR4 pricing to continue to trend up, likely 20% in 3Q. Our supply/demand models suggests a 19-20% gap in 2H26 and an 18-20% gap in 2027/28.

SiCap and SLC NAND could be re-rating factors: SiCap (link) is a new growth driver for niche memory vendors. Recent developments for servers (for high performance NAND) also suggest potential adoption of SLC in datacenters, as SLC is ideal for fast reading and writing speed. Currently, SLC NAND could be supplied by Greater China vendors such as GigaDevice, Winbond, and Macronix.

Estimate changes: For **Winbond**, we raise 2026, 2027 and 2028 EPS estimates by 23%, 65% and 94%, respectively, to reflect DDR4 pricing strength and opportunities from SiCap and SLC NAND. For **Nanya**, we increase respective estimates by 15%, 29% and 33% to reflect DDR4 pricing strength; we also turn positive on more LTAs with server and enterprise SSD customers, along with their additional 5kwpm capacity to DDR5 starting 3Q26. For **GigaDevice**, we raise 2026e by 58% and 2027e by 60% to reflect DDR4 pricing strength and opportunities from SLC NAND.

GREATER CHINA TECHNOLOGY SEMICONDUCTORS

Asia Pacific	
Industry View	Attractive

WHAT'S CHANGED

Nanya Technology Corp. (2408.TW)	From	To
Rating	Equal-weight	**Overweight**
Price Target	NT$278.00	**NT$380.00**

Winbond Electronics Corp (2344.TW)	From	To
Rating	Equal-weight	**Overweight**
Price Target	NT$100.00	**NT$222.00**

GigaDevice Semiconductor Beijing Inc (603986.SS)	From	To
Price Target	Rmb348.00	**Rmb585.00**

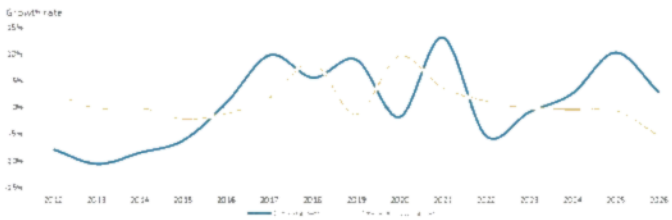
Key Charts and Exhibits

Exhibit 1: Order of preference: GC memory

	Macronix 2337.TW	AP Memory 6531.TW	Winbond 2344.TW	Nanya Tech 2408.TW	PSMC 6770.TW	GigaDevice 603986.SS
Rating	Overweight	Overweight	Overweight	Overweight	Overweight	Overweight
Trading Currency	TWD	TWD	TWD	TWD	TWD	CNY
Price Target	202.0	1,555.0	222.0	380.0	88.0	585.0
Current Price (as of 2026/5/27)	155.5	1,080.0	155.0	312.0	74.8	514.2
Upside/(Downside) (%)	30%	44%	43%	22%	18%	14%
Market Cap (in USD mm)	8,932.0	5,562.4	20,620.6	30,605.2	9,970.0	50,574.4
Avg Daily Traded Vol (in USD mm)	215.3	68.1	372.8	558.3	206.4	1,088.1
Street View: Ratings						
Buy/Overweight	90%	75%	91%	77%	50%	93%
Hold/Equal-weight	0%	25%	9%	15%	50%	7%
Sell/Underweight	10%	0%	0%	8%	0%	0%
Bull Case Value	326.0	1,830.0	264.0	805.0	140.0	1,016.0
Upside (%)	110%	69%	70%	158%	87%	98%
Bear Case Value	119.5	620.0	91.0	210.0	44.0	427.0
Downside (%)	-23%	-43%	-41%	-33%	-41%	-17%
Risk/Reward Skew	4.7	1.6	1.7	4.8	2.1	5.8
Morgan Stanley Estimates						
FY26e	TWD	TWD	TWD	TWD	TWD	CNY
Sales	66,682	9,601	258,581	332,719	73,014	22,018
EBITDA	24,507	3,037	129,462	253,840	13,009	9,882
EBIT	16,970	2,976	113,852	241,654	5,445	9,632
EPS	7.35	17.65	20.36	61.50	4.64	12.81
FY27e						
Sales	126,013	17,829	377,335	471,750	89,835	32,133
EBITDA	54,966	6,491	203,533	342,723	27,573	15,564
EBIT	48,496	6,429	183,356	319,538	20,109	15,314
EPS	20.82	34.34	32.73	80.92	3.78	20.71
FY26 MSe vs. Consensus Mean						
Sales	-16.5%	-3.0%	11.7%	13.0%	6.7%	24.5%
EBITDA	-22.7%	-0.9%	12.3%	13.5%	-55.9%	42.6%
EBIT	-40.8%	3.8%	9.9%	15.0%	-78.0%	47.9%
EPS	-44.7%	-0.7%	9.1%	23.8%	-13.7%	50.6%
FY27 MSe vs. Consensus Mean						
Sales	6.8%	19.6%	25.9%	21.5%	8.8%	41.2%
EBITDA	-18.8%	26.0%	19.5%	16.5%	-9.7%	80.2%
EBIT	-13.2%	33.0%	37.9%	14.5%	-4.7%	81.6%
EPS	-24.8%	25.1%	31.5%	24.8%	-8.3%	91.6%
Valuation Multiples at Last Close						
FY26e						
P/E	21.1x	61.2x	7.6x	5.1x	16.1x	40.1x
EV/EBIT	24.2x	80.6x	8.5x	5.6x	34.0x	38.9x
EV/EBITDA	13.3x	53.6x	5.3x	4.5x	13.9x	33.1x
EV/Sales	4.9x	17.0x	2.7x	3.4x	2.5x	14.9x
FCF Yield	-11.6%	1.2%	4.7%	-23.4%	32.4%	2.1%
FY27e						
P/E	7.5x	31.4x	4.7x	3.9x	19.8x	24.8x
EV/EBIT	5.9x	25.0x	2.9x	2.8x	6.7x	20.7x
EV/EBITDA	5.2x	24.8x	2.6x	2.6x	4.9x	20.4x
EV/Sales	2.3x	9.0x	1.4x	1.9x	1.5x	9.9x
FCF Yield	15.3%	2.2%	24.5%	26.1%	16.0%	3.5%
Implied Multiples on MS Price Target						
FY26e						
P/E	27.5x	88.1x	10.9x	6.2x	19.0x	45.7x
EV/EBIT	24.2x	80.6x	8.5x	5.6x	34.0x	38.9x
EV/EBITDA	16.7x	79.0x	7.5x	5.3x	14.2x	37.9x
EV/Sales	6.1x	25.0x	3.7x	4.1x	2.5x	17.0x
FY27e						
P/E	9.7x	45.3x	6.8x	4.7x	23.3x	28.2x
EV/EBIT	7.7x	40.0x	5.2x	3.8x	18.8x	28.9x
EV/EBITDA	6.8x	39.6x	4.7x	3.5x	13.7x	28.4x
EV/Sales	3.0x	14.4x	2.5x	2.5x	4.2x	13.8x

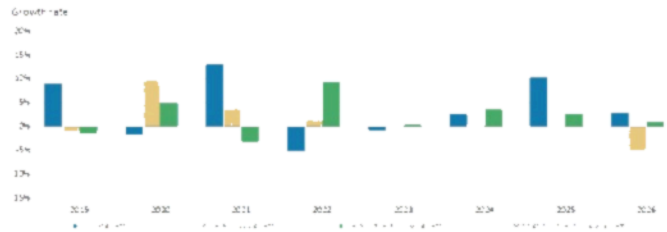
Source: FactSet (consensus mean), Morgan Stanley Research (e) estimates

Exhibit 2: NOR flash demand and supply growth rates



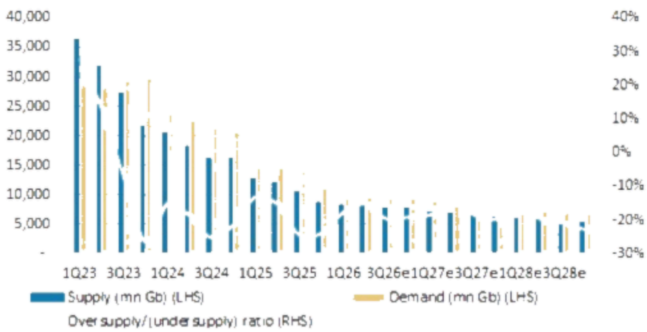
Source: Company data, Morgan Stanley Research

Exhibit 3: NOR flash demand growth and supply growth by density



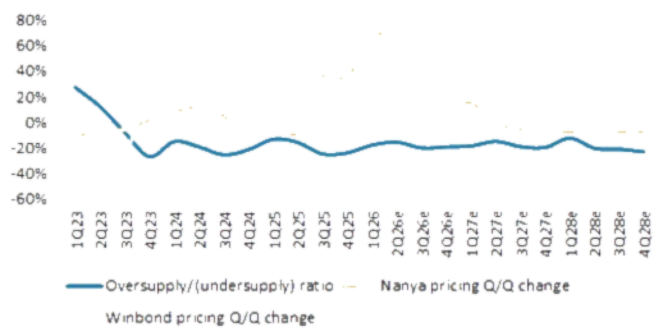
Source: Company data, Morgan Stanley Research

Exhibit 4: DDR4 quarterly supply and demand summary



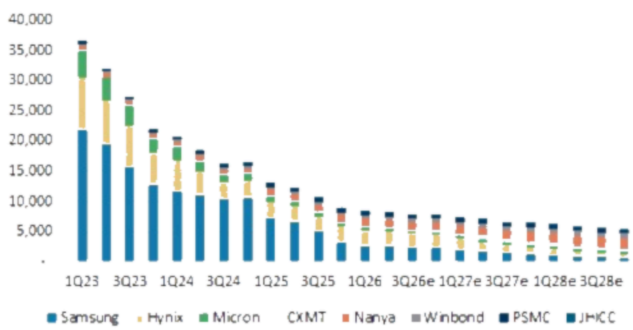
Source: Company data, IDC, Morgan Stanley Research (e) estimates

Exhibit 5: Quarterly oversupply/undersupply ratio vs. Nanya and Winbond pricing Q/Q change



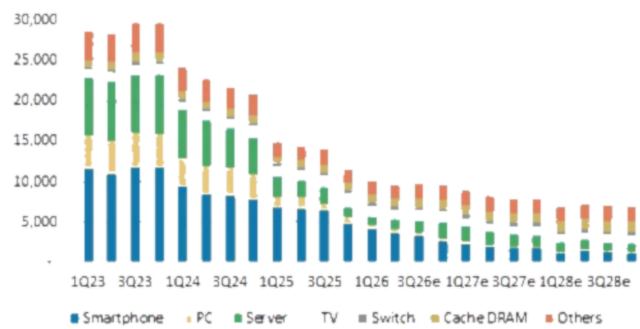
Source: Company data, IDC, Morgan Stanley Research (e) estimates

Exhibit 6: Quarterly supply breakdown (mn Gb)



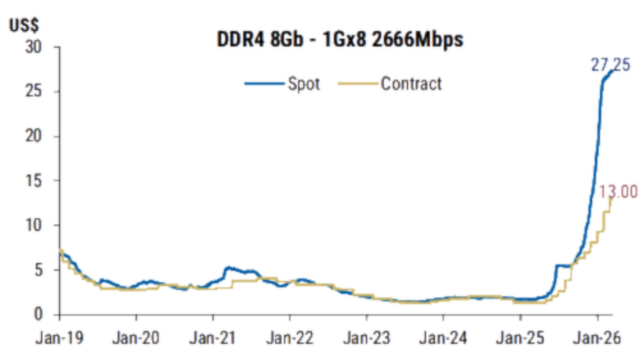
Source: Company data, Morgan Stanley Research (e) estimates

Exhibit 7: Quarterly demand breakdown by product (mn Gb)



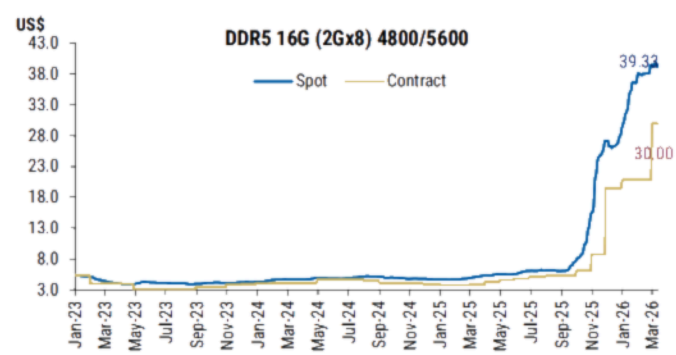
Source: IDC, Morgan Stanley Research (e) estimates

Exhibit 8: DDR4 8Gb (1Gx8) pricing chart



Source: DRAMeXchange, Morgan Stanley Research. Data as of Mar 13, 2026

Exhibit 9: DDR5 16Gb (2Gx8) pricing chart



Source: DRAMeXchange, Morgan Stanley Research. Data as of Mar 13, 2026

Winbond: Estimate Revisions and Quarterly Financials

We raise our 2026, 2027, and 2028 EPS estimates by 23%, 65%, and 94%, respectively. This reflects DDR4 pricing strength, an enlarged SLC NAND TAM, and SiCap foundry business with SEMCO.

Exhibit 10: Winbond: Estimate revisions

NT$ mn	New '26E	Old '26E	Diff.	New '27E	Old '27E	Diff.	New '28E	Old '28E	Diff.
Net sales	258,581	224,249	15%	377,335	264,897	42%	410,515	256,015	60%
COGS	(111,702)	(103,295)		(158,768)	(123,965)		(178,012)	(127,994)	
Gross profit	146,879	120,954	21%	218,567	140,932	55%	232,503	128,021	82%
Operating expenses	(33,028)	(30,277)		(35,211)	(31,693)		(36,149)	(31,941)	
Operating profit	113,852	90,677	26%	183,356	109,239	68%	196,354	96,080	104%
Non-op. income (exp)	715	917		776	917		756	897	
Pretax Income	114,567	91,594	25%	184,133	110,157	67%	197,111	96,977	103%
Taxes	(22,946)	(18,319)		(36,827)	(22,031)		(40,609)	(20,583)	
Net income	91,607	74,586	23%	147,293	89,436	65%	156,488	77,705	101%
Reported EPS	**20.36**	**16.57**	**23%**	**32.73**	**19.87**	**65%**	**36.09**	**18.59**	**94%**
Margins									
Gross margin	56.8%	53.9%	2.9 ppt	57.9%	53.2%	4.7 ppt	56.6%	50.0%	6.6 ppt
Operating margin	44.0%	40.4%	3.6 ppt	48.6%	41.2%	7.4 ppt	47.8%	37.5%	10.3 ppt
Pretax margin	44.3%	40.8%	3.5 ppt	48.8%	41.6%	7.2 ppt	48.0%	37.9%	10.1 ppt
Net margin	35.4%	33.3%	2.2 ppt	39.0%	33.8%	5.3 ppt	38.1%	30.4%	7.8 ppt
Opex %	12.8%	13.5%	-0.7 ppt	9.3%	12.0%	-2.6 ppt	8.8%	12.5%	-3.7 ppt

NT$	New '26E	Old '26E	Diff.	New '27E	Old '27E	Diff.	New '28E	Old '28E	Diff.
BVPS	**40.54**	**37.59**	**8%**	**73.32**	**57.51**	**27%**	**82.20**	**62.39**	**32%**

Source: Morgan Stanley Research (E) estimates

Exhibit 11: Winbond: Quarterly financials

NT$ in million	1Q25	2Q25	3Q25	4Q25	1Q26	2Q26E	3Q26E	4Q26E	1Q27E	2Q27E	3Q27E	4Q27E	1Q28E	2Q28E	3Q28E	4Q28E	2025	2026E	2027E	2028E
Total Revenues	19,993	21,018	21,771	29,829	38,253	54,396	73,948	89,984	91,342	93,039	95,199	97,756	100,964	102,137	103,436	104,779	[illegible]	258,581	377,335	410,515
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]				
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Gross Margin	5,122	4,753	10,906	11,148	20,416	30,407	43,967	52,100	53,318	54,172	54,947	56,130	58,780	58,709	59,809	60,180	31,198	146,879	218,567	232,503
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Operating Income	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Total Non-operating Income(Loss)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Profit Before Taxes	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Reported Income (TW GAAP)	(1,969)	(1,312)	2,943	3,422	10,114	18,148	28,943	34,803	36,968	36,961	36,976	37,807	38,911	40,876	40,771	41,066	3,962	91,607	147,293	156,488
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Reported EPS (NT$, TW GAAP)	(0.34)	(0.29)	0.66	0.76	2.26	4.03	6.34	7.73	7.99	8.12	8.22	8.40	8.67	9.04	9.06	9.13	0.88	20.36	32.73	36.09
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]				
[illegible]	21.8	21.0	22.5	25.4	28.6	30.6	32.8	40.3	40.6	56.7	64.9	73.3	82.2	0.0	13.8	13.4	25.4	40.6	73.3	82.2

Source: Company data, Morgan Stanley Research (E) estimates

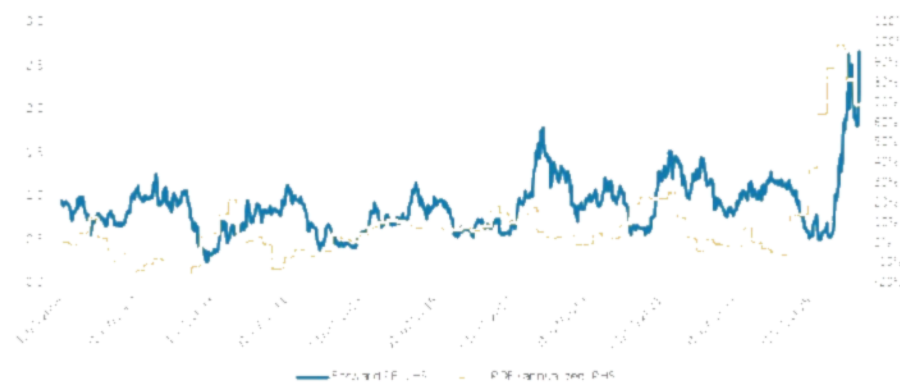
Winbond: Valuation Methodology

We raise our PT to NT$222 from NT$100: We continue to apply P/B multiple methodology to derive our price target, in line with our approach for Greater China memory IDM peers and in view of the industry's high earnings volatility. Our new price target (base case scenario value) implies 5.5x 2026e BVPS and 3.0x 2027e BVPS, vs. our prior target multiple of 2.7x 2026e BVPS, as we think DDR4 pricing and strength and SLC NAND / SiCap opportunities could drive re-rating. We raise our bull case value to NT$264 (6.5x our 2026e BVPS) and our bear case value to NT$91 (2.2x our 2026e BVPS).

Exhibit 12: Winbond: Historical forward P/B

Source: Company data, Morgan Stanley Research estimates

Exhibit 13: Winbond: Historical forward P/B vs ROE



Source: Company data, Morgan Stanley Research estimates

Exhibit 14: Winbond: Earnings estimate revision breadth

Source: Company data, Morgan Stanley Research estimates

Risk Reward – Winbond Electronics Corp (2344.TW)

DDR, NOR and SLC NAND pricing upside; long-term opportunities in CUBE

PRICE TARGET NT$222.00

Base case, 5.5x 2026e P/B. This method is in line with the approach we adopt for Greater China memory IDM peers, in view of the industry's high volatility. We believe the stock merits a multiple beyond the high end of its historical band of 0.5-1.5x since 2017, as we are seeing DRAM pricing upside, a sustainable NOR price hike, and opportunities in SLC NAND and SiCap foundry business.

Consensus Price Target Distribution

NT$100.00 — NT$149.52 — NT$222.00 MS PT

Mean ◆ Morgan Stanley Estimates

RISK REWARD CHART

Key: Historical Stock Performance ● Current Stock Price ◆ Price Target

OVERWEIGHT THESIS

- We expect DDR3 and DDR4 price increases to continue in 2026. The supply/demand gap should widen into 2H26.
- We see NOR price hikes continuing throughout 2026.
- High density SLC NAND pricing is catching up, and we now expect a larger TAM from data center applications.
- We share management's view that CUBE could be meaningful in 2026, given engagement with multiple foundry partners and customers.
- We see potential for several headwinds ahead for the logic business.
- Our PT implies 3.0x 2027e P/B.

Consensus Rating Distribution

89%	Overweight
11%	Equal-weight
0%	Underweight

● MS Rating

Risk Reward Themes

Pricing Power: *Positive*

here

BULL CASE NT$264.00

6.5x 2026e BVPS

NOR Flash pricing and DRAM prices rebound more in the next 12 months: NOR Flash rises dramatically. DRAM prices continue to rise drastically within the next 12 months, with 25nm accounting for >80% of sales.

BASE CASE NT$222.00

5.5x 2026e BVPS

Margin expansion benefiting from the memory up-cycle: 1) NOR Flash pricing rises significantly in the next 12 months; and 2) DRAM prices rise significantly in the next 12 months.

BEAR CASE NT$91.00

2.2x 2026e BVPS

NOR Flash prices face pressure in the next 12 months; DRAM market back to oversupply, with slower technology migration: 1) NOR Flash shows price declines; and 2) DRAM prices drop in the next 12 months.

Morgan Stanley | RESEARCH

IDEA

Risk Reward – Winbond Electronics Corp (2344.TW)

KEY EARNINGS INPUTS

Drivers	2025	2026e	2027e	2028e
NOR ASP (%)	8	91	15	(9)
DRAM ASP (%)	(2)	250	23	5
Mobile RAM sales (NT$, mn)	5,302	20,466	31,117	33,443
DRAM sales (NT$, mn)	27,808	162,393	262,521	295,448
Flash sales (NT$, mn)	31,106	65,008	83,222	76,142

INVESTMENT DRIVERS

- DRAM pricing
- NOR pricing
- Technology migration

GLOBAL REVENUE EXPOSURE

- 0-10% Europe ex UK
- 0-10% India
- 0-10% Japan
- 0-10% MEA
- 0-10% North America
- 0-10% UK
- 20-30% APAC, ex Japan, Mainland China and India
- 40-50% Mainland China

here

MS ALPHA MODELS

1/5 MOST — 3 Month Horizon

RISKS TO PT/RATING

RISKS TO UPSIDE

- NOR Flash pricing increase, driven by stronger-than-expected demand
- Stronger-than-expected DRAM pricing given ongoing supply shortage
- Faster-than-expected SLC NAND development

RISKS TO DOWNSIDE

- NOR Flash downcycle, driven by weaker demand
- Lower-than-expected DRAM pricing given ongoing oversupply
- Slower-than-expected SLC NAND development

OWNERSHIP POSITIONING

Inst. Owners, % Active 47.5%

MS ESTIMATES VS. CONSENSUS

FY Dec 2026e

	Low	Morgan Stanley Estimate	High
Sales / Revenue (NT$, mn)	187,233	258,581	274,712
EBITDA (NT$, mn)	77,402	129,462	156,063
Net income (NT$, mn)	52,797	91,608	114,946
EPS (NT$)	11.73	20.36	25.54

◆ Mean ◆ Morgan Stanley Estimates

Winbond: Financial Summary

Exhibit 15: Financial summary

Income Statement

NT$mn (Years End Dec)	2025	2026E	2027E	2028E
Net sales	89,406	258,581	377,335	410,515
COGS	(58,210)	(111,702)	(158,768)	(178,012)
Depreciation Expense	(12,683)	(15,219)	(19,785)	(25,721)
Variable Cost	(76,274)	(77,444)	(120,048)	(129,023)
Gross profit	31,196	146,879	218,567	232,503
Operating expenses	(25,662)	(33,028)	(35,211)	(36,149)
Operating income	**5,534**	**113,852**	**183,356**	**196,354**
Non-operating income	(924)	715	776	756
Pre tax income	4,610	114,567	184,132	197,111
Income tax	(649)	(22,960)	(36,840)	(40,623)
Reported net income	**3,962**	**91,607**	**147,293**	**156,488**
Adj wtd avg shrs (m)	4,500	4,500	4,500	4,500
Reported EPS (NT$)	**0.88**	**20.36**	**32.73**	**36.09**
Modelware EPS (NT$)	**0.88**	**20.36**	**32.73**	**36.09**

Balance Sheet

NT$mn (Years End Dec)	2025	2026E	2027E	2028E
Cash	15,734	19,403	169,426	207,048
Mkt Securities	13,347	13,347	13,347	13,347
AR/NR	16,071	51,991	56,480	57,873
Inventory	25,758	96,884	109,250	107,844
Other	2,281	2,281	2,281	2,281
Current Assets	73,191	183,906	346,785	388,393
Long-term investments	19,266	19,216	19,156	19,146
Fixed assets	93,830	88,581	78,796	76,838
Other assets	5,935	5,935	5,935	5,935
Total Assets	192,192	297,638	450,672	490,312
S.T borrowings	2,739	2,739	2,739	2,739
AP/NP	8,274	26,137	28,717	28,561
Other ST liabilities	35,652	54,893	57,832	57,658
LT debt	26,399	26,399	26,399	26,399
Other LT liabilities	5,048	5,048	5,048	5,048
Total Liabilities	**78,062**	**115,213**	**120,731**	**120,406**
Common stocks	45,000	45,000	45,000	45,000
Preferred stocks	0	0	0	0
Capital Reserve	13,752	13,752	13,752	13,752
Retained earning	49,184	117,480	264,994	304,961
Other shareholders' equity	0	0	0	0
Total Equity	114,130	182,426	329,940	369,907
Total Liab. & Shrhldr's Equity	**192,192**	**297,638**	**450,672**	**490,312**
BVPS	**25.4**	**40.5**	**73.3**	**82.2**

Cash Flow Statement

NT$mn (Years End Dec)	2025	2026E	2027E	2028E
Cashflow from Operations	**18,668**	**45,959**	**168,780**	**180,980**
Net profits	3,962	91,607	147,293	156,488
Depreciation	12,308	15,219	19,785	19,785
Working Capital Change	(6,405)	(89,136)	(10,276)	(4,139)
Other adjustments	8,802	28,269	11,978	8,845
Cashflow from investing	**(18,259)**	**(10,342)**	**(10,331)**	**(18,209)**
Capex	(5,300)	(10,000)	(10,000)	(10,000)
Change of LT investment	0	0	0	0
Change of ST investment	(4,827)	0	0	0
Other adjustments	(8,132)	(342)	(331)	(8,209)
Cashflow from financing	**9,931**	**(23,311)**	**222**	**(116,522)**
Increase in LT debt	(1,696)	0	0	0
Increase in S.T debt	615	0	0	0
Cash Dividend Paid	0	(18,321)	0	0
Dir& Emp Bonus Paid	0	0	0	0
Other adjustments	11,009	(4,990)	222	(116,522)
Exchange rate adjustment	(8,706)	(8,636)	(8,647)	(8,627)
Net change in cash	**1,633**	**3,669**	**150,023**	**37,622**

Financial Ratio

	2025	2026E	2027E	2028E
Growth(%)				
Turnover	9.0	189.2	45.9	8.8
Margins (%)				
Gross Margin	34.9	56.8	57.9	56.6
Operating Margin	6.2	44.0	48.6	47.8
EBITDA Margin	6.0	48.1	44.3	41.6
Pretax Margin	5.2	44.3	48.8	48.0
Net Profit	4.4	35.4	39.0	38.1
Return (%)				
ROAE	4.2	84.9	83.6	48.3
ROAA	2.1	37.4	39.4	33.7
Gearing (%)				
Net Debt/Equity	31.9	17.9	(35.6)	(41.8)
Liabilities/Equity	66.4	63.2	36.6	32.6
Ratios (X)				
Current ratio	1.6	2.2	3.9	4.4
Quick ratio	0.7	0.9	2.5	3.0
Others				
AR/NR Turnover (days)	45	53	48	52
Inventory Turnover (days)	107	102	87	98
AP Turnover (days)	45	52	85	66
Cash Conversion (days)	107	104	49	84

Source: Company data, Morgan Stanley Research (E) estimates

GigaDevice: Estimate Revisions and Quarterly Financials

We raise our EPS estimates by 58% for 2026 and 60% for 2027. This reflects DDR4 pricing strength and an enlarged SLC NAND TAM.

Exhibit 16: GigaDevice: Estimate revisions

Rmb mn	2026E	2026E	Diff.	2027E	2027E	Diff.	2028E
Net sales	22,018	17,061	29%	32,133	24,555	31%	37,996
COGS	9,437	8,509		13,736	12,045		17,583
Gross profit	12,581	8,552	47%	18,397	12,510	47%	20,413
Operating expenses	2,949	2,816		3,083	3,275		3,354
Operating profit	9,632	5,736	68%	15,314	9,235	66%	17,059
Non-op. income (exp.)	(125)	100		20	100		20
Pretax Income	9,507	5,836	63%	15,334	9,335	64%	17,079
Taxes	873	175		1,408	280		1,568
Net income	8,589	5,628	53%	13,881	9,022	54%	15,465
Reported EPS (Rmb)	**12.81**	**8.10**	**58%**	**20.71**	**12.98**	**60%**	**23.07**
Margins							
Gross margin	57.1%	50.1%	7.0%	57.3%	50.9%	6.3%	53.7%
Operating margin	43.7%	33.6%	10.1%	47.7%	37.6%	10.0%	44.9%
Pretax margin	43.2%	34.2%	9.0%	47.7%	38.0%	9.7%	44.9%
Net margin	39.0%	33.0%	6.0%	43.2%	36.7%	6.5%	40.7%

Source: Morgan Stanley Research (E) estimates

Exhibit 17: GigaDevice: Quarterly financials

Rmb mn	1Q25	2Q25	3Q25	4Q25	1Q26	2Q26E	3Q26E	4Q26E	1Q27E	2Q27E	3Q27E	4Q27E	1Q28E	2Q28E	3Q28E	4Q28E	2024	2025	2026E	2027E	2028E
Total Revenues	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Gross Profit	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Operating Income	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Profit Before Taxes	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Reported Income	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Reported EPS (Rmb)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Source: Company data, Morgan Stanley Research (E) estimates

GigaDevice: Valuation methodology

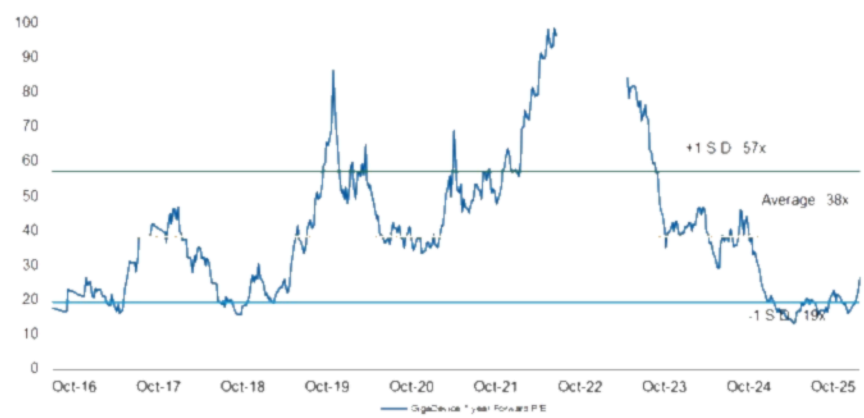
We raise our price target (base case scenario value) by 68% to Rmb585: We continue to derive our price target from a residual income model, which we believe best captures the stock's long-term value. Our key assumptions include a cost of equity of 8.9% (beta 1.1, risk-free rate 2%, and risk premium 6%), a payout ratio of 40%, a medium-term growth rate of 16.4% and a terminal growth rate of 3.0% (all unchanged). Our new price target implies 2026e P/E of 46x, above the historical average of 40x since 2016. Our bull case value rises to Rmb1,016 from Rmb604, and our bear case value increases to Rmb427 from Rmb254.

Exhibit 18: GigaDevice: Residual Income model

Rmb mn	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E	2034E	2035E	2036E	2037E
Total Equity	27,317	38,622	49,923	61,407	74,768	90,314	108,402	129,447	153,933	182,423	215,570	254,138
Net Profit	8,589	13,881	15,465	17,994	20,936	24,359	28,342	32,976	38,367	44,640	51,939	60,431
ROAE	36.9%	42.1%	34.9%	32.3%	30.7%	29.5%	28.5%	27.7%	27.1%	26.5%	26.1%	25.7%
Residual Income	5 387	9,074	10 059	11 701	13,425	15,421	17,736	20,425	23 548	27 179	31 402	36 312
Spread	28.0%	33.2%	26.0%	23.4%	21.9%	20.6%	19.6%	18.8%	18.2%	17.7%	17.2%	16.8%
Ending Equity Capital	27 317											
PV of Forecast Period	93 912											
PV of Continuing Value	271 171											
Equity Value	392.401											
No. of Shares	670											
Projected Price (Rmb)	585											

Source: Morgan Stanley Research (E) estimates

Exhibit 19: GigaDevice: historical forward P/E



Source: Company data, Morgan Stanley Research estimates

Risk Reward – GigaDevice Semiconductor Beijing Inc (603986.SS)

Multiple drivers ahead

PRICE TARGET Rmb585.00

Our price target is our base case value, derived from our residual income model. Key assumptions: cost of equity of 8.9% (beta 1.1, risk-free rate 2% and risk premium 6%), a payout ratio of 40%, medium-term growth rate of 16.4%, and a terminal growth rate of 3.0%.

Consensus Price Target Distribution

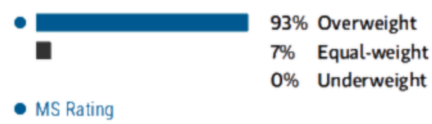
RISK REWARD CHART

Key: Historical Stock Performance · Current Stock Price · Price Target

OVERWEIGHT THESIS

- We expect GigaDevice to continue to gain share in China's MCU market. Auto MCUs offer bigger opportunities as local self-sufficiency is low.
- We see further NOR Flash pricing upside, and expect GigaDevice NOR quality to catch up in the auto segment.
- Specialty DRAM pricing started to rebound in late 1Q25, and there are opportunities such as wafer-on-wafer specialty memory.
- We believe GigaDevice will ramp up 16G LPDDR4 and 32G DDR4 at CXMT's Gen 4 platform in 2027.
- Our price target implies 2026e P/E of 46x, slightly above the historical average of 40x since 2016.

Consensus Rating Distribution



Risk Reward Themes

Pricing Power:	*Positive*
Secular Growth:	*Positive*

here

BULL CASE Rmb1,016.00

79x 2026e EPS

NOR flash prices rise more sharply into 2H26, and the company increases production of mid-/high-density NOR; MCU growth accelerates; DRAM business shows significant contribution: 1) NOR flash sales grow 120%+ Y/Y in 2026 via price hikes and meaningful growth in demand; 2) MCU sales growth significantly exceeds 40% in 2026; 3) contribution from WoW tops expectations in 2026-27e; 4) DDR4 price hike stronger than expected; 5) gross margin above 60% in 2026.

BASE CASE Rmb585.00

46x 2026e EPS

NOR and DRAM pricing upside in 2026; moderate WoW contribution: 1) NOR flash sales rise 91%+ Y/Y in 2026; 2) MCU grows 28% in 2026; 3) moderate contribution from WoW in 2026-27e; 4) significant DDR4 price hike in 2026; 5) gross margin at ~57% in 2026.

BEAR CASE Rmb427.00

33x 2026e EPS

NOR Flash price falls sharply into 2H26; MCU faces stronger competition from foreign and local vendors; pause in DRAM business development: 1) NOR flash sales decline in 2026, as ASP starts to drop; 2) MCU sales decrease >10% Y/Y in 2026; 3) contribution from WoW falls below expectations in 2026-27e; 4) DDR4 price declines; 5) gross margin below 35% in 2026.

Risk Reward – GigaDevice Semiconductor Beijing Inc (603986.SS)

KEY EARNINGS INPUTS

Drivers	2025	2026e	2027e	2028e
NOR Flash ASP growth (%)	4	52	8	0
MCU ASP growth (%)	(8)	0	0	0
Gross margin (%)	40	56	57	54

INVESTMENT DRIVERS

- Beneficiary of MCU localization
- Decreasing opex burden
- Development of AI glasses market

GLOBAL REVENUE EXPOSURE

- 0-10% Europe ex UK
- 0-10% India
- 0-10% Japan
- 0-10% MEA
- 0-10% North America
- 0-10% UK
- 20-30% APAC, ex Japan, Mainland China and India
- 50-60% Mainland China

here

MS ALPHA MODELS

4/5 MOST — 3 Month Horizon

RISKS TO PT/RATING

RISKS TO UPSIDE

- NOR up-cycle driven by stronger demand
- Superior chip design, leading to increasing exposure to low-density NOR
- Faster-than-expected DRAM development

RISKS TO DOWNSIDE

- NOR down-cycle driven by weaker demand
- Inferior chip design, leading to increasing exposure to mid-/high-density NOR
- Slower-than-expected DRAM development

OWNERSHIP POSITIONING

Inst. Owners, % Active 61.1%

MS ESTIMATES VS. CONSENSUS

FY Dec 2026e

		Mean	Morgan Stanley Estimates
Sales / Revenue (Rmb, mn)	13,902.0	[illegible]	22,017.7
EBITDA (Rmb, mn)	3,698.0	[illegible]	9,882
Net income (Rmb, mn)	3,396.0	[illegible]	8,589
EPS (Rmb)	5.1	[illegible]	12.8

◆ Mean ◆ Morgan Stanley Estimates

GigaDevice: Financial Summary

Exhibit 20: Financial Summary

Income Statement

Rmb mn (Years End Dec)	2024	2025	2026E	2027E	2028E
Net sales	7,356	9,203	22,018	32,133	37,996
COGS	(4,561)	(5,502)	(9,437)	(13,736)	(17,583)
Gross profit	2,795	3,701	12,581	18,397	20,413
Operating expenses	(1,984)	(2,176)	(2,949)	(3,083)	(3,354)
Operating income	**811**	**1,526**	**9,632**	**15,314**	**17,059**
Non-operating income	313	181	(125)	20	20
Pre-tax income	1,124	1,706	9,507	15,334	17,079
Income tax	23	29	873	1,408	1,568
Minority interests	2	(29)	(45)	(45)	(45)
Reported net income	**1,103**	**1,648**	**8,589**	**13,881**	**15,465**
Adj wtd avg shrs(m)	666	666	670	670	670
MW EPS (Rmb)	1.66	2.48	12.81	20.71	23.07
Reported EPS (Rmb)	**1.66**	**2.48**	**12.81**	**20.71**	**23.07**

Balance Sheet

Rmb mn (Years End Dec)	2024	2025	2026E	2027E	2028E
Cash	9,128	9,186	15,986	25,582	35,432
Mkt Securities	120	102	102	102	102
AR/NR	232	199	537	784	927
Inventory	2,346	3,066	4,487	6,532	8,361
Other	609	873	873	873	873
Current Assets	**12,435**	**13,425**	**21,985**	**33,872**	**45,694**
Long-term investments	3,503	4,085	4,085	4,085	4,085
Fixed assets	1,062	1,325	1,325	1,325	1,325
Deferred assets	426	432	432	432	432
Other assets	1,803	2,129	2,129	2,129	2,129
Total Assets	**19,229**	**21,397**	**29,956**	**41,843**	**53,665**
S/T borrowings	898	200	200	200	200
AP/NP	734	813	1,278	1,860	2,382
Other ST liabilities	699	934	934	934	934
LT debt	0	0	0	0	0
Other LT liabilities	220	226	226	226	226
Total Liabilities	**2,550**	**2,174**	**2,639**	**3,221**	**3,742**
Common shares	664	668	668	668	668
Additional capital	8,656	9,201	9,201	9,201	9,201
Retained earning	6,796	8,407	16,502	27,806	39,107
Other shareholders' equity	563	946	946	946	946
Total Equity	**16,679**	**19,223**	**27,317**	**38,622**	**49,923**
Total Liab. & Shrhldr's Equity	**19,229**	**21,397**	**29,956**	**41,843**	**53,665**

E = Morgan Stanley Research Estimates
Source: Morgan Stanley Research, Company Data

Cash Flow Statement

Rmb mn (Years End Dec)	2024	2025	2026E	2027E	2028E
Cashflow from Operations	**2,032**	**2,032**	**7,544**	**12,422**	**14,264**
Net profits	1,103	1,648	8,589	13,881	15,465
Depreciation	269	250	250	250	250
Working Capital Change	(397)	(440)	(1,295)	(1,709)	(1,451)
Other adjustments	1,058	574	0	0	0
Cashflow from Investing	**(669)**	**(1,391)**	**(250)**	**(250)**	**(250)**
Capex	(499)	(1,049)	(250)	(250)	(250)
Change of LT Investment	(1,975)	(1,886)	0	0	0
Change of ST Investment	0	0	0	0	0
Other adjustments	1,805	1,544	0	0	0
Cashflow from financing	**480**	**(517)**	**(494)**	**(2,577)**	**(4,164)**
Increase in L/T debt	0	0	0	0	0
Increase in S/T debt	898	(698)	0	0	0
Cash Dividend Paid	(15)	(243)	(494)	(2,577)	(4,164)
Dir& Emp Bonus Paid	0	0	0	0	0
Issuance of stock	5	516	0	0	0
Other adjustments	(407)	(92)	0	0	0
Exchange rate adjustment	107	21	0	0	0
Net change in cash	**1,950**	**146**	**6,800**	**9,596**	**9,850**

Financial Ratios

	2024	2025	2026E	2027E	2028E
Growth(%)					
Turnover	27.7	25.1	139.2	45.9	18.2
Operating profits	129.9	88.1	531.4	59.0	11.4
EPS	585.3	49.6	417.5	61.6	11.4
Margins (%)					
Gross Margin	38.0	40.2	57.1	57.3	53.7
Operating Margin	11.0	16.6	43.7	47.7	44.9
Pretax Margin	15.3	18.5	43.2	47.7	44.9
Net Margin	15.0	17.9	39.0	43.2	40.7
Return (%)					
ROAE	6.9	9.2	36.9	42.1	34.9
ROAA	6.2	8.1	33.5	38.7	32.4
Gearing (%)					
Net Debt/Equity	(49.3)	(46.7)	(57.8)	(65.7)	(70.6)
Liabilities/Equity	15.3	11.3	9.7	8.3	7.5
Ratios (X)					
Current ratio	5.3	6.9	9.1	11.3	13.0
Quick ratio	4.0	4.8	6.8	8.8	10.3
Others					
AR/NR Turnover (days)	9	9	9	9	9
Inventory Turnover (days)	174	174	174	174	174
AP Turnover (days)	49	49	49	49	49
Cash Conversion (days)	133	133	133	133	133

Nanya Tech: Estimate Revisions and Quarterly Financials

We raise our EPS estimates by 15% for 2026, 29% for 2027, and 33% for 2028, reflecting DDR4 pricing strength. We also turn positive on more LTAs with server and enterprise SSD customers, along with their additional 5kwpm capacity to DDR5 starting 3Q26..

Exhibit 21: Nanya Tech: Estimate revisions

NT$ mn	New '26E	Old '26E	Diff.	New '27E	Old '27E	Diff.	New '28E	Old '28E	Diff.
Net sales	332,719	301,785	10%	471,750	377,418	25%	341,113	275,445	24%
Gross profit	258,553	230,616	12%	359,775	276,873	30%	205,545	154,803	33%
Operating profit	241,654	205,800	17%	319,538	242,266	32%	174,123	127,189	37%
Pretax Income	246,334	209,831	17%	323,815	245,628	32%	178,412	130,563	37%
Net income	198,340	169,050	17%	260,940	197,849	32%	144,097	105,458	37%
EPS (NT$)	**61.50**	**53.71**	**15%**	**80.92**	**62.86**	**29%**	**44.68**	**33.50**	**33%**
Margins									
Gross margin	77.7%	76.4%		76.3%	73.4%		60.3%	56.2%	
Operating margin	72.6%	68.2%		67.7%	64.2%		51.0%	46.2%	
Pretax margin	74.0%	69.5%		68.6%	65.1%		52.3%	47.4%	
Net margin	59.6%	56.0%		55.3%	52.4%		42.2%	38.3%	

NT$	New '26E	Old '26E	Diff.	New '27E	Old '27E	Diff.	New '27E	Old '27E	Diff.
BVPS (NT$)	117.90	109.59	8%	202.11	173.44	17%	248.61	207.48	20%

Source: Morgan Stanley Research (E) estimates

Exhibit 22: Nanya Tech: Quarterly financials

NT$ in million	1Q26	2Q26E	3Q26E	4Q26E	1Q27E	2Q27E	3Q27E	4Q27E	2024	2025	2026e	2027e	2028e
Total Revenues	**49,087**	**79,416**	**97,208**	**107,008**	**123,151**	**123,242**	**115,934**	**109,423**	**34,132**	**66,587**	**332,719**	**471,750**	**341,113**
Sequential Change	63.1%	61.8%	22.4%	10.1%	15.1%	0.1%	5.9%	5.6%					
Change vs Year Ago	582.9%	654.5%	417.6%	255.6%	150.9%	55.2%	19.3%	2.3%	14.2%	95.1%	399.7%	41.8%	27.7%
Cost of Sales	(15,771)	(17,635)	(19,500)	(21,260)	(22,522)	(23,977)	(25,432)	(40,044)	(32,292)	(50,841)	(74,166)	(111,975)	(135,468)
Percent of Revenues	32.1%	22.2%	20.1%	19.9%	18.3%	19.5%	21.9%	36.6%	94.6%	76.4%	22.3%	23.7%	39.7%
Variable costs	(12,874)	(14,650)	(16,453)	(18,003)	(19,658)	(21,113)	(22,568)	(25,451)	(18,408)	(37,321)	(61,981)	(88,791)	(111,163)
as a % of revenue	26.2%	18.4%	16.9%	16.8%	16.0%	17.1%	19.5%	23.3%	53.9%	56.0%	18.6%	18.8%	32.6%
Dep. & Amort. expense	(2,897)	(2,986)	(3,046)	(3,257)	(2,864)	(2,864)	(2,864)	(14,593)	(13,883)	(13,520)	(12,186)	(23,184)	(24,404)
as a % of COGS	18.4%	16.9%	15.6%	15.3%	12.7%	11.9%	11.3%	36.4%	43.0%	26.6%	16.4%	20.7%	18.0%
as a % of revenue	5.9%	3.8%	3.1%	3.0%	2.3%	2.3%	2.5%	13.3%	40.7%	20.3%	3.7%	4.9%	7.2%
Gross Margin	**33,316**	**61,781**	**77,708**	**85,748**	**100,629**	**99,265**	**90,502**	**69,379**	**1,840**	**15,745**	**258,553**	**359,776**	**206,645**
Percent of Revenues	67.9%	77.8%	79.9%	80.1%	81.7%	80.5%	78.1%	63.4%	5.4%	23.6%	77.7%	76.3%	60.3%
Total Opex	(3,205)	(3,987)	(4,592)	(5,114)	(10,066)	(10,211)	(10,043)	(9,916)	(10,134)	(9,741)	(16,899)	(40,236)	(31,422)
Percent of Revenues	6.5%	5.0%	4.7%	4.8%	8.2%	8.3%	8.7%	9.1%	29.7%	14.6%	5.1%	8.5%	9.2%
R&D	(2,109)	(2,214)	(2,325)	(2,511)	(2,800)	(2,940)	(3,087)	(3,241)	(7,685)	(7,041)	(9,160)	(12,068)	(11,637)
Percent of Revenues	4.3%	2.8%	2.4%	2.3%	2.3%	2.4%	2.7%	3.0%	22.5%	10.6%	2.8%	2.6%	3.4%
Sales and Marketing	(347)	(562)	(686)	(757)	(1,970)	(1,972)	(1,857)	(1,751)	(665)	(632)	(2,354)	(7,548)	(5,456)
Percent of Revenues	0.7%	0.7%	0.7%	0.7%	1.6%	1.6%	1.6%	1.6%	1.9%	1.2%	0.7%	1.6%	1.6%
General and Admin	(746)	(1,211)	(1,579)	(1,846)	(5,296)	(5,299)	(5,101)	(4,924)	(1,764)	(1,868)	(5,385)	(20,620)	(14,327)
Percent of Revenues	1.5%	1.5%	1.6%	1.7%	4.3%	4.3%	4.4%	4.5%	5.2%	2.8%	1.6%	4.4%	4.2%
Operating Income	**30,111**	**57,794**	**73,115**	**80,634**	**90,563**	**89,054**	**80,459**	**59,463**	**(8,294)**	**6,004**	**241,654**	**319,538**	**174,123**
Percent of Revenues	61.3%	72.8%	75.2%	75.4%	73.5%	72.3%	69.4%	54.3%	24.3%	9.0%	72.6%	67.7%	51.0%
EBITDA	33,008	60,779	76,162	83,891	93,426	91,918	83,322	74,056	5,589	19,524	253,840	342,721	198,526
EBITDA margin	67%	77%	78%	78%	76%	75%	72%	68%	16%	29%	76%	73%	58%
Non-operating Income(Loss)	**1,607**	**1,020**	**1,020**	**1,034**	**1,070**	**1,070**	**1,070**	**1,067**	**3,998**	**2,639**	**4,680**	**4,277**	**4,288**
Profit Before Taxes	**31,718**	**58,813**	**74,135**	**81,667**	**91,633**	**90,124**	**81,529**	**60,530**	**(4,297)**	**8,643**	**246,334**	**323,815**	**178,412**
Percent of Revenues	64.6%	74.1%	76.3%	76.3%	74.4%	73.1%	70.3%	55.3%	12.6%	13.0%	74.0%	68.6%	52.3%
Taxes	(5,660)	(11,512)	(16,843)	(13,979)	(16,351)	(17,640)	(18,523)	(10,361)	1,474	(1,269)	(47,994)	(62,875)	(34,314)
Tax Rate	17.8%	19.6%	22.7%	17.1%	17.8%	19.6%	22.7%	17.1%	34.3%	14.7%	19.5%	19.4%	19.2%
Reported Income (TW GAAP)	**26,058**	**47,302**	**57,292**	**67,688**	**75,281**	**72,484**	**63,006**	**50,169**	**(2,823)**	**7,373**	**198,340**	**260,940**	**144,097**
Percent of Revenues	53.1%	59.6%	58.9%	63.3%	61.1%	58.8%	54.3%	45.8%	8.3%	11.1%	59.6%	55.3%	42.2%
Change vs Year Ago	-144.3%	-125.3%	3565%	510%	189%	53%	10%	-26%	-59%	-361%	2590%	32%	45%
Reported EPS (NT$, TW GAAP)	**8.08**	**14.67**	**17.77**	**20.99**	**23.34**	**22.48**	**19.54**	**15.56**	**(0.91)**	**2.36**	**61.50**	**80.92**	**44.68**
Sequential Change	129%	82%	21%	18%	11%	4%	13%	20%	59%	359%	2505%	32%	45%
Book value per share									**53.3**	**54.6**	**113.3**	**194.2**	**238.9**

Source: Company data, Morgan Stanley Research (E) estimates

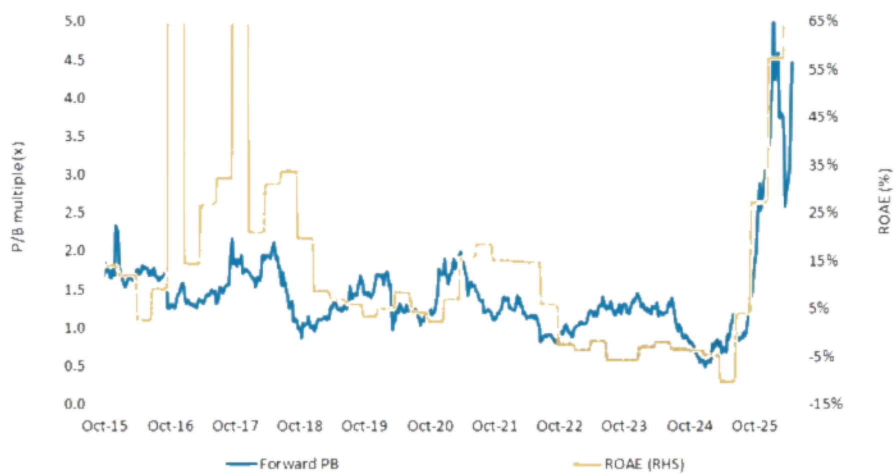
Nanya Tech: Valuation Methodology

We raise our price target (base case scenario value) from NT$278 to NT$380. Our price target reflects BVPS estimates of 3.22x 2026 and 1.88x 2027, vs. ROE seen at 74% for 2026 and 53% for 2027. We expect DDR4 pricing and strength plus LTAs to drive re-rating. We raise our bull and bear case values from NT$588 and NT$155 to NT$805 and NT$210, respectively, implying 6.83x and 1.78x 2026e BVPS.

Exhibit 23: Nanya Tech – Historical P/B band

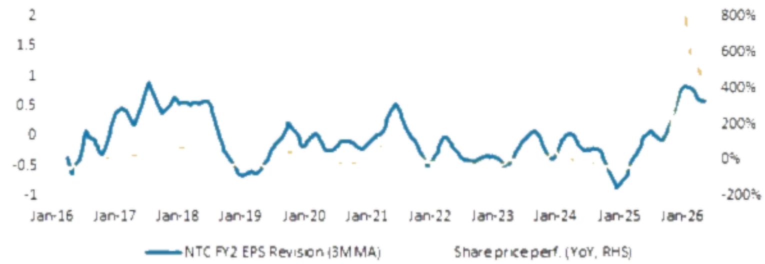
Source: Company data, Morgan Stanley Research estimates

Exhibit 24: Nanya Tech: Historical forward P/B vs ROE



Source: Company data, Morgan Stanley Research estimates

Exhibit 25: Nanya Tech: Earnings estimate revision breadth



Source: Company data, Morgan Stanley Research estimates

Risk Reward – Nanya Technology Corp. (2408.TW)

DDR4 S/D becoming more favorable; OW

PRICE TARGET NT$380.00

Base case, P/B. We expect the stock to trade at 3.22x 2026, 1.88x 2027, and 1.53x 2028 BVPS, above its average since 2015. We think NTC will benefit from a supply-driven up-cycle as major memory players are exiting the DDR4 market. That should help NTC more than offset the competitive impact from CXMT in the near term.

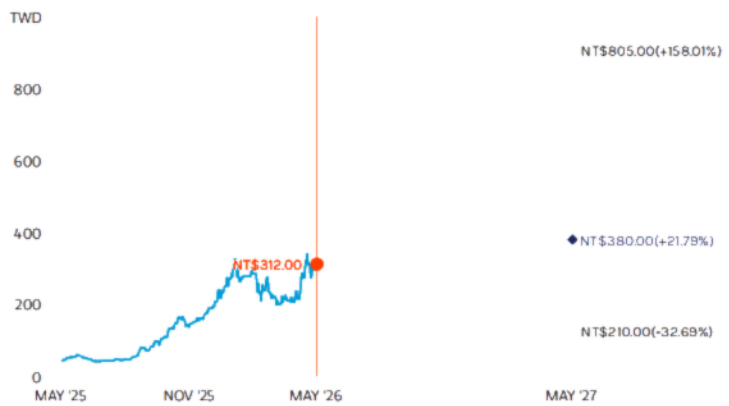
Consensus Price Target Distribution NT$150.00 — NT$322.22 (Mean) — MS PT — NT$520.00

◆ Mean ◆ Morgan Stanley Estimates

OVERWEIGHT THESIS

- Major memory suppliers are gradually exiting the DDR4 market, benefiting existing Taiwanese players, including Nanya Tech.
- We expect DDR4 shortage into 2H26 to help NTC more than offset the competitive impact from CXMT in 2026. The supply shortage appears set to widen into 2H26.
- Our price target reflects BVPS of 3.22x for 2026, 1.88x for 2027, and 1.53x for 2028.

RISK REWARD CHART



Key: — Historical Stock Performance ● Current Stock Price ◆ Price Target

Consensus Rating Distribution

- 73% Overweight
- 20% Equal-weight
- 7% Underweight

● MS Rating

Risk Reward Themes

Pricing Power: *Positive*

BULL CASE NT$805.00

6.83x 2026e BVPS

DRAM prices strong; faster-than-expected 1a/1b nm ramp; competition from Korea and China is a non-factor: DRAM pricing becomes very strong in 2026 thanks to production cuts and relief of inventory pressure. NTC's utilization rate returns to the 100% level. Korean and Chinese competitors all exit the consumer DRAM market.

BASE CASE NT$380.00

3.22x 2026e BVPS

Strong DRAM cycle: Major DRAM players now plan to exit the DDR4 market, which positions Taiwanese players to benefit. We expect price-hike momentum to continue through 2026, with widened supply shortage into 2H26.

BEAR CASE NT$210.00

1.78x 2026e BVPS

Specialty DRAM demand becomes weak in 2026 with intensifying Chinese competition: Nanya Tech could face more pressure from pricing and technological competition amid a weak cycle. Inventory remains at historical peak levels. SK hynix and Chinese DRAM competitors take all the market share in China. Nanya Tech's utilization rate falls to the 40% level.

Risk Reward – Nanya Technology Corp. (2408.TW)

KEY EARNINGS INPUTS

Drivers	2025	2026e	2027e	2028e
12" Wafers Out per quarter (000s)	825.0	830.0	855.0	900.0
Average Wafer Yield (%)	81.8	108.1	106.5	95.0
Total Die shipments - 2 gb equivalent (mn)	2,368.0	3,178.8	3,244.9	3,090.4

INVESTMENT DRIVERS

- Specialty DRAM pricing
- Monthly sales momentum
- Industry outlook reported by industry peers

GLOBAL REVENUE EXPOSURE

- 0-10% Europe ex UK
- 0-10% Japan
- 0-10% North America
- 40-50% APAC, ex Japan, Mainland China and India
- 40-50% Mainland China

here

MS ALPHA MODELS

2/5 **MOST** 3 Month Horizon

RISKS TO PT/RATING

RISKS TO UPSIDE

- Sustained DRAM prices from more disciplined supply and stronger demand
- Stronger pricing environment, enabling revenue guidance to be beaten
- Faster-than-expected 1a/1b nm ramp-up progress

RISKS TO DOWNSIDE

- Slower-than-expected 1a/1b nm ramp-up
- Less demand for specialty DRAM from 4K2K TVs and smart set-top boxes

OWNERSHIP POSITIONING

Inst. Owners, % Active 54.7%

MS ESTIMATES VS. CONSENSUS

FY Dec 2026e

Sales / Revenue (NT$, mn)	259,718		332,719
EBITDA (NT$, mn)	191,966	253,840	254,943
Net income (NT$, mn)	154,740	198,340	198,615
EPS (NT$)	40.62		61.50

◆ Mean ◆ Morgan Stanley Estimates

Nanya Tech: Financial Summary

Income Statement

NT$mn (Years End Dec)	2024	2025	2026E	2027E	2028E
Net sales	34 132	66 587	332 719	471 750	341.113
COGS	(32 292)	(50 841)	(74 166)	(111 975)	(135 568)
Depreciation Expense	(13 883)	(13 520)	(12 186)	(23 184)	(24 404)
Variable Cost	(18 408)	(37 321)	(61 981)	(88 791)	(111 163)
Gross profit	1 840	15 745	258 553	359 775	205 545
Operating expenses	(10 134)	(9.741)	(16.899)	(40 236)	(31 422)
Operating income	**(8,294)**	**6,004**	**241,654**	**319,538**	**174,123**
Non-operating income	3.998	2 639	4 680	4 277	4.288
Pre-tax income	(4 297)	8 643	246 334	323 815	178.412
Income tax	1 474	(1 269)	(47 994)	(62 875)	(34 314)
Reported net Income	**(2,823)**	**7,373**	**198,340**	**260,940**	**144,097**
Adj wtd avg shrs(m)	3.099	3 123	3 225	3 225	3.225
Reported EPS (NT$)	**(0.91)**	**2.36**	**61.50**	**80.92**	**44.68**
EPS for consensus (NT$)	**(0.91)**	**2.36**	**61.50**	**80.92**	**44.68**

Balance Sheet

NT$mn (Years End Dec)	2024	2025	2026E	2027E	2028E
Cash	61 903	58 074	73 074	328 871	603.415
Mkt Securities	0	0	0	0	0
AR/NR	4 132	16 558	54 623	55 855	36.120
Inventory	35.318	27 288	371 653	380 041	245.759
Other	6 593	6 621	16 982	17 264	12.739
Current Assets	107 946	108 541	516 331	782 031	898.033
Long-term investments	4 645	5 904	7 583	8 538	9.492
Fixed assets	84 327	85 031	125 252	132 068	137.663
Other assets	9 789	8 977	5 145	5 145	5.145
Total Assets	**206.706**	**208.453**	**654.311**	**927.781**	**1.050,333**
S/T borrowings	14 536	5 060	240 000	245 000	225 000
AP/NP	5 180	6 481	8 496	16 002	14 462
Other ST liabilities	6 330	7 480	17 772	17 796	17.791
LT debt	3 995	14 196	17 796	17 796	17 796
Other LT liabilities	4 878	4 698	4 927	4 927	4.927
Total Liabilities	**41,653**	**37,914**	**288,991**	**301,522**	**279,977**
Common stocks	30.986	30 986	30 986	30 986	30.986
Preferred stocks	0	0	0	0	0
Capital Researve	32 834	33 081	33 168	33 168	33.168
Retained earning	101 233	106 333	301 028	561 968	706.065
Other shareholders' equity	0	0	0	0	0
Total Equity	165 053	170 538	365 319	626 259	770.357
Total Liab. & Shrhldr's Equity	**206.706**	**208.453**	**654.311**	**927.781**	**1.050,333**
BVPS	**53.27**	**54.61**	**113.28**	**194.20**	**238.89**

Source Company data TEJ Morgan Stanley ResearchE= Morgan Stanley Research Estimates

Cash Flow Statement

NT$mn (Years End Dec)	2024	2025	2026E	2027E	2028E
Cashflow from Operations	**1.952**	**18.568**	**(174,468)**	**280.797**	**324.544**
Net profits	(2 823)	7 373	198 340	260 940	144 097
Depreciation	15 892	14 034	12 186	23 184	24 404
Working Capital Change	8 316	5 697	(380.415)	(2 114)	152 477
Other adjustments	(19.433)	(8 536)	(4.579)	(1 213)	3 566
Cashflow from Investing	**(16,188)**	**(14,110)**	**(50,005)**	**(30,000)**	**(30,000)**
Capex	(16.141)	(13 441)	(50.000)	(30 000)	(30 000)
Change of LT Investment	0	(612)	0	0	0
Change of ST Investment	0	0	0	0	0
Other adjustments	(46)	(57)	(5)	0	0
Cashflow from financing	**13,707**	**(6,317)**	**238,453**	**5,000**	**(20,000)**
Increase in L/T debt	6 750	(6 750)	3 600	0	0
Increase in S/T debt	3 355	(9 477)	234 941	5 000	(20.000)
Cash Dividend Paid	0	0	0	0	0
Dir& Emp Bonus Paid	0	(7 000)	0	0	0
Proceed fmNewIssue	0	0	0	0	0
Other adjustments	3 602	16.909	(87)	0	0
Exchange rate adjustment	3 619	(1 970)	1 019	0	0
Net change in cash	**3.091**	**-3.829**	**15.000**	**255.797**	**274.544**

Financial Ratios

	2024	2025	2026E	2027E	2028E
Growth(%)					
Turnover	14 2	95 1	399 7	41 8	-27 7
Margins (%)					
Gross Margin	5 4	23 6	77 7	76 3	60 3
Operating Margin	-24 3	9 0	72 6	67 7	51 0
EBITA Margin	-65 0	-11 3	69 0	62 8	43 9
Pretax Margin	-12 6	13 0	74 0	68 6	52 3
Net Profit	-8 3	11 1	59 6	55 3	42 2
Return (%)					
ROAE	(1 7)	4 4	74 0	52 6	20 6
ROAA	(1 4)	3 6	46 0	33 0	14 6
Gearing (%)					
Net Debt/Equity	(26 3)	(22 7)	50 6	(10 6)	(46 8)
Liabilities/Equity	25 2	22 2	79 1	48 1	36 3
Ratios (X)					
Current ratio	4 1	5 7	1 9	2 8	3 5
Quick ratio	2 5	3 9	0 5	1 4	2 5
Others					
AR/NR Turnover (days)	59	50	57	39	43
Inventory Turnover (days)	311	337	172	219	291
AP Turnover (days)	37	59	47	42	52
Cash Conversion (days)	333	328	182	216	281

This report references U.S. Executive Order 14032 and/or entities or securities that are designated thereunder. U.S. persons may be prohibited from buying certain securities of entities named in this report. Readers are solely responsible for ensuring that their investment activities are carried out in compliance with applicable laws.

This report references export controls and/or entities that may be subject to export control restrictions. Readers are solely responsible for ensuring that their investment or trade activities are carried out in compliance with applicable laws.

This report references U.S. Executive Order 14105 and/or entities that may be in scope of such order. U.S. persons may be prohibited from engaging in certain transactions or otherwise require certain other transactions be notified to the U.S. Department of Treasury. Readers are solely responsible for ensuring that their investment or trade activities are carried out in compliance with applicable laws.

Risk Reward Reference links

1. View explanation of Options Probabilities methodology - Options_Probabilities_Exhibit_Link.pdf

2. View descriptions of Risk Rewards Themes - RR_Themes_Exhibit_Link.pdf

3. View explanation of regional hierarchies - GEG_Exhibit_Link.pdf

4. View explanation of Theme/Exposure methodology - ESG_Sustainable_Solutions_External_Link.pdf

5. View explanation of HERS methodology - ESG_HERS_External_Link.pdf