BERNSTEIN
SOCIETE GENERALE GROUP

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Global Memory

MEMORY TRACKER (Sep): ~20% price hike QoQ,in 3Q, & perhaps teens% in 4Q


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*This monthly tracker (download dataset **here**) summarizes contract/spot price data released by TrendForce/DRAMeXchange & compares that with our model & investor expectations.*

DRAM: Sep contracts still indicated ~20% QoQ increase for 3QCY26 and 4Q may see another 10-15% rise.

Spot price: DRAM spot price remained robust in Sep. PC DRAM spot price rose by 4-7% MoM while server DDR5 was also up 4% MoM.

Contract price: DRAM contract prices in Sep rose marginally MoM & indicated 3QCY26 contract price to be 20% higher than 2QCY26, with 24% for PC, 18% for Server, 11% for Mobile & ~34% for Consumer. CSP demand got stronger and more LTAs were signed, at higher prices than earlier LTAs too. They also help contribute to a more severe shortage going forward and expectations on 4QCY26 price increase also improved as a result, to 10-15% QoQ, better than our estimates.

NAND: wafer contract price remained sluggish but eSSD is expected to support blended price to continue rising going forward.

Spot price: After the strong rise in Aug NAND wafer spot price corrected by ~6% MoM in Sep.

Contract price: Sep NAND wafer contract price was largely unchanged from Aug mainly due to cautious purchases from module makers and weak demand from consumer segments. Mobile NAND price on the other hand rose by ~20% QoQ in 3QCY26, but the size of the increase also substantially smaller vs. 2Q as OEMs cut handset production & thus memory usage. Most importantly we believe client & enterprise SSD price rose by ~20% QoQ, making the overall NAND price hike also close to 20% in 3Q. With eSSD demand strengthening, TrendForce sees 4QCY26 NAND price up by 15-20%, ahead of our estimates too.

In summary, memory shortage continues to drive gradual price increases. Contract price data suggested conventional DRAM & NAND contract prices to rise by close to 20% QoQ in 3QCY26. The size of the increase narrowed notably vs. 2Q, but still solid vs. history. More importantly the ***shortage likely is becoming more severe driven by unrelenting demand from AI, and likely will support 4QCY26 to see another price increase***. Going forward we expect prices to move up further as ***shortage persists into CY27***, though room for further increase should become smaller due to LTA price caps, and heavy cost burden from memory for both AI & non-AI applications. See our recent **Report 1,** & **Report 2** for details. Separately we initiated on CXMT with Outperform not long ago. Please see **Initiation Report** for details.

BERNSTEIN TICKER TABLE

			2 Oct 2026		TTM	Reported EPS				Reported P/E (x)		
			Closing	Price	Rel.							
Ticker	Rating	Cur	Price	Target	Perf.	Cur	2025A	2026E	2027E	2025A	2026E	2027E
005930.KS (SEC- Samsung)	O	KRW	276,000	440,000	183.2%	KRW	6,611.53	45,072	74,602	41.7	6.1	3.7
005935.KS (SEC-Pref - Samsung)	O	KRW	201,000	374,000	160.7%	KRW	6,611.53	45,072	74,602	30.4	4.5	2.7
SMSN.LI (Samsung)	O	USD	5,120.00	7,857.00	187.0%	USD	116.15	781.29	1,332.17	44.1	6.6	3.8
000660.KS (SK hynix)	O	KRW	1,841,000	2,700,000	325.9%	KRW	60,341	353,627	554,848	30.5	5.2	3.3
MU (Micron)	O	USD	1,063.96	1,300.00	441.4%	USD	8.29	73.78	173.33	128.4	14.4	6.1
688825.CH (CXMT)	O	CNY	54.79	70.00	NA	CNY	0.03	4.04	6.82	N/M	13.6	8.0
285A.JP (KIOXIA)	U	JPY	18,735	49,000	766.9%	JPY	1,014.00	10,485	14,140	18.5	1.8	1.3
SNDK (SanDisk)	O	USD	1,704.16	3,000.00	1290.7%	USD	70.08	238.36	272.09	24.3	7.1	6.3
ASIAX			1,970.45									
EM			1,834.49									
SPX			7,773.95									

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

MU, SNDK estimate is Adjusted EPS; MU, SNDK valuation is Adjusted P/E (x); SNDK base year is 2026;

Source: Bloomberg, Bernstein estimates and analysis.

INVESTMENT IMPLICATIONS

Samsung Electronics: We rate Samsung Electronics Outperform with price target of KRW 440,000.

SK hynix : We rate SK hynix Outperform with price target of KRW 2,700,000.

Micron: We rate Micron Outperform with price target of US$1,300.00.

CXMT: We rate CXMT Outperform with price target of CNY 70.00.

KIOXIA: We rate KIOXIA Underperform with price target of JPY 49,000.

SanDisk: We rate SNDK Outperform with a price target of $3,000.00

DETAILS

*TrendForce (who publishes research on memory market & also maintains DRAMeXchange for memory spot market) has released the Sep CY2026 contract prices for DRAM & NAND covering different applications (dataset can be downloaded at **Memory Price Tracker**). We select mainstream products from each segment, apply different weights on them to derive an industry average price change. SSD & HBM are not in the samples but will be additionally considered so that we can compare the overall ASP with our projections. Spot market is probably only 10% of the overall volume and price is also noisy, but we also summarize spot price data as it can be a leading indicator of contract price. Please feel free to find our **most recent market review** and download our industry and company models from the links below.*

- ***CoWoS/HBM Model***
- ***DRAM Industry Model***
- ***NAND Industry Model***
- ***Samsung Electronics Model***
- ***SK hynix Model***
- ***Micron Model***
- ***CXMT Model***
- ***KIOXIA Model***
- ***SanDisk Model***

Sep contract prices went up LSD% MoM and suggested a ~20% QoQ rise for 3QCY26 DRAM contract price. Early view on 4QCY26 has price increase by another 10-15% QoQ, supported by a further server demand increase.

- **Spot price:**
  - **PC DRAM**: PC DRAM chip spot price continued to be robust in Sep, rising by 7.4% MoM for DDR5 and 4.4% for DDR4 (Exhibit 1, Exhibit 3, Exhibit 4, Exhibit 5, Exhibit 6). As DRAM shortage is widely expected to continue into CY2027 and may even worsen, module makers likely continued to purchase DRAM while chip supply from vendors stayed tight.
  - **Server DRAM**: Server DRAM module spot price was also largely solid, with DDR5 rising by another 4.2% MoM, even though DDR4 fell by 4.1% MoM (Exhibit 1, Exhibit 11, Exhibit 12). DDR5 module spot price remained significantly above contract price by about 113%, suggesting server DRAM shortage continued to be very acute.

- **Contract price**:
  - **Average**: Overall, taking a weighted average of multiple samples, we find contracts set in Sep indicated conventional DRAM prices to rise by 20% QoQ in 3QCY26. This is marginally better than indicated by Jul & Aug and is in line with the latest expectation. Please note this is only for conventional DRAM, and the actual company reported ASP may differ due to changing mix among PC, Mobile, server, etc., and also most importantly the balance from steadier HBM price that is largely set by annual contracts (Exhibit 1). Thus, the weighted average contract price increase here may not match the increase reported in company earnings releases but does serve as an important indication for where the market is heading.
  - **PC DRAM**: Contract price in Sep was up by 2-4% MoM, and indicated 3QCY26 contract price to be 24% higher QoQ (Exhibit 1, Exhibit 3, Exhibit 7). New transactions were limited in Sep and negotiations were mostly about volumes for 4QCY26 and CY2027. Customers continued to expect more severe shortage and even reduced bit supply in CY2027, and hence continued with their memory procurement plan. On the other hand they also continue to optimize memory

usage, reducing memory content and spec for low-end product lines. Looking ahead into 4QCY26, while no vendor has released formal price quotes yet, expectation for price increase is also rising, now reaching 13-18% QoQ vs 3-8% previously, mainly as vendors may be aiming to narrow the price gap between PC and server DRAM amidst continued and worsening shortage.

  - **PC DDR4:** PC DDR4 prices rose a bit more than DDR5 in Sep and DDR5's discount vs DDR4 increased slightly back to 10% (Exhibit 5,Exhibit 8,Exhibit 9,Exhibit 10). DDR4 price has been even more robust than DDR5 as supply base largely shifts to Taiwanese makers led by Nanya (2408 TT, not covered). On the other hand demand remains quite resilient from long-tailed customers from consumer segments, such as low-end PC and eSSD.

- **Server DRAM:** Sep server DRAM contract price was up slightly by 1% MoM, and still suggested 3QCY26 price to be 18% higher than 2QCY26 (Exhibit 1, Exhibit 11, Exhibit 13). Demand continued to be very robust, primarily supported by US CSPs. More LTA deals were signed with US CSPs, as they expected higher memory need going forward, and these additional LTAs come with higher price bands vs those signed earlier. They hence were expected to contribute to potentially tighter supply into CY2027, especially for PC and mobile customers. On the other hand, such demand strength was not found from China CSPs, who seemed more concerned on cost. But given the general robust demand, price increase likely will enjoy continued momentum. Vendors' early quotes for 4QCY26 pricing suggest 20-25% QoQ increase, for customers that remain on quarterly supply contracts. Sep already saw some add-on supply deals for server OEM customers and price was already 10-15% ahead of 3QCY26. But considering that still a meaningful portion of volume will be under LTAs with price bands, TrendForce estimates the average price increase will fall between 10-15% QoQ for 4QCY26.

  - **Server DDR4:** Server DDR4 contract price was unchanged (Exhibit 12,Exhibit 14). DDR5's premium over DDR4 went up slightly to 17% (Exhibit 15). Server DDR4 likely will remain in shortage with supply EOL from large suppliers while some legacy applications continue to require it. However, DDR5 was likely already over 90% of the server DRAM market into 3QCY26 and hence should be the focus.

- **Mobile DRAM:** TrendForce updates Mobile DRAM contract price data only in the first month of a quarter. By the end of Jul, 3QCY26 contract price negotiation was still ongoing, but TrendForce estimates mobile DRAM contract price to increase by ~10% QoQ in 3QCY26, with SK hynix and CXMT potentially seeing more increases over Samsung, as their prices were behind in 2Q (Exhibit 1, Exhibit 16, Exhibit 17, Exhibit 18). Mobile OEM customers were notably more reluctant than before to accept price hikes, after they meaningfully reduced their smartphone production plans. As a result similar to PC DRAM, mobile DRAM will see the size of price hike notably more moderate in 3Q vs. 2Q. Having said that OEMs were still keen to have supply contracts in place to secure memory supply, at least for the next year. Into 4QCY26, TrendForce expects DRAM demand from smartphone OEMs to remain subdued due to reduced production, and as a result price increase to further narrow to single digit % QoQ.

- **Specialty DRAM:** Specialty DRAM contract price moved up by 0-2% MoM in Sep, and suggested 3QCY26 to be 33-36% higher vs. 2QCY26 (Exhibit 1, Exhibit 19). As server DRAM demand expanded, inflationary pressure also applied to prices of consumer DRAM. Though per GB price was already the highest among other markets, and therefore room for increase is also more limited. But broadly supply constraint is probably more severe as supply priority is likely the lowest at vendors, whereas demand is expected to remain robust driven by SSD controllers.

- **In summary, Sep contract prices went up LSD% MoM and suggested a ~20% QoQ rise for 3QCY26 DRAM contract price. Demand became stronger mainly driven by more CSP demand and LTA deals. And this potentially makes the shortage even more severe going forward. As a result, expectations for price increase going forward is also rising, and PC and mobile DRAM may see bigger increases as vendors aim to narrow the price gap vs server DRAM. Now price increase for conventional DRAM is expected to be in 10-15% in 4QCY26, ahead of our expectation. Overall we expect the shortage situation to last into CY27 and pricing to continue growing, though we still believe the pace will decelerate. See Global Memory: Cycle is still elevated, but beware of the long-term threat from China for details.**

In Sep, NAND wafer spot price dropped while contract price remained sluggish. Though enterprise SSD demand has been strengthening and may support more resilient NAND price increase going forward than expected.

- **Spot price**:

  - **NAND Wafer:** Sep NAND wafer spot price experienced moderate correction after a strong Aug. Both 512 and 1Tb wafers fell by ~6% MoM (Exhibit 2, Exhibit 20, Exhibit 21). By end of Sep, 1Tb wafer spot price was similar to contract price while 512Tb spot remained below contract.

- **Contract price:**

  - **Average**: Taking the average of multiple samples of NAND wafer and eMMC/UFS, we find contracts set in Aug indicated just 9.7% QoQ NAND price increase from 2QCY26 to 3QCY26 (Exhibit 2). We highlight this is an underestimate due to over representation of wafers and omission of SSDs in our sample. While wafer price is slowing, we believe price hike of SSDs in 3QCY26 likely was around 20% for both client and enterprise, and therefore the blended NAND contract price increase likely should approach 20% as well. Still actual company reported 3QCY26 ASP may differ as product mix changes and timing difference between contract and shipment can have a significant impact on blended ASP.

  - **NAND Wafer:** NAND wafer contract price was largely unchanged MoM in Sep. Compared to the average in 2QCY26, Sep contract price was also only mildly higher by 1-6% (Exhibit 20, Exhibit 21, Exhibit 22, Exhibit 23). While enterprise SSD demand was seeing continued strength, consumer markets such as mobile and PC stayed very soft, and most module houses maintained cautious stance. And TrendForce observed some increase in inventory of consumer grade NAND wafers at the vendor side, despite their limited supply, and bundling with LPDDR was needed to promote sales. Going forward TrendForce remains relatively bearish on wafer price and thinks if consumer grade wafer inventory continue to build up, wafer contract price may see decline.

  - **eMMC/UFS**: TrendForce expects 3QCY26 Mobile NAND contract price to rise by ~20% QoQ (Exhibit 24,Exhibit 25). Similar dynamics was in play as in PC & Mobile DRAM. Customers were fighting harder on price increase as they cut production volume & thus memory need. Suppliers still tried to get prices higher to match profitability of eSSD. Overall eMMC/UFS price grew a bit more than other memories mainly to catch up. TrendForce also observed that while global suppliers were more firm on price hikes, Chinese supplier (i.e. YMTC) was not asking as much price increase, and hence won more volume. Going forward, TrendForce expects price hikes will be met with reduced volume by customers and moderate to 5-10% in 4QCY26.

- **Overall NAND wafer spot price did not continue its uptrend while contract price remained stagnant, due to soft demand by PC and mobile customers. Mobile NAND price was relatively better but also at a decelerating pace vs. 2Q. Overall 3QCY26 NAND contract price increase is expected at ~20% QoQ, mainly supported by SSDs. Into 4QCY26, TrendForce expects 15-20% increase in NAND contract price, stronger than our expectation, largely driven by stronger enterprise SSD demand. We also think NAND will be in shortage in CY2027. But given higher competitive pressure from China, we remain structurally more cautious on NAND in the long term (details in our deep dive on YMTC).**

Our industry average is derived from an average of multiple memory products used in different applications, weighted by their contributions to the overall market, and with the weights on DDR5 & LPDDR5 regularly adjusted to reflect its penetration. HBM & SSD are not in our samples & are considered separately.

- Our average DRAM contract price change mentioned above is a weighted average of multiple applications, with Mobile, Server, PC and Specialty DRAM accounting for 34%, 34%, 9% and 15%, respectively. And within PC DRAM, we include both DRAM chips and DRAM module prices in our samples, assuming 10%/90% weight for chips/modules (Exhibit 26). Additionally, the weights assigned to DDR5 & LPDDR5 will be adjusted according to their adoptions. For NAND, the average is based on a weighted average of eMMC/UFC (40%) and NAND wafer (60%) (Exhibit 27). We then additionally discuss the

influence of HBM & SSD as they're not in our samples.

EXHIBIT 1: **Sep DRAM contract price indicated 20% QoQ increase for conventional DRAM price in 3QCY26.**

		Price at End of Month						Quarterly Avg		
					MoM					
DRAM		Jul-26	Aug-26	Sep-26	Jul-26	Aug-26	Sep-26	2QCY26	3QCY26	QoQ
Spot Price (US$/GB)										
PC DRAM	DDR4 8Gb Chip	42.1	44.4	46.3	17.0%	5.4%	4.4%	33.4	43.0	28.7%
	DDR5 16Gb Chip	25.5	27.0	29.0	8.8%	5.8%	7.4%	20.1	26.3	31.0%
Server DRAM	DDR4 64GB RDIMM*	22.9	22.7	21.7	-6.7%	-1.0%	-4.1%	23.1	22.8	-1.1%
	DDR5 64GB RDIMM*	46.6	48.4	50.5	3.8%	3.9%	4.2%	38.1	48.1	26.2%

		Prior Price			Price for 3QCY26			3QCY26 Over 2QCY26		
DRAM		1QCY26	2QCY26	QoQ	Jul-26	Aug-26	Sep-26	Jul-26	Aug-26	Sep-26
Contract Price (US$/GB, except the price of uMCP & eMCP is module price)										
PC DRAM	DDR4 8Gb Chip	12.5	19.0	52.0%	24.0	25.0	26.0	26.3%	31.6%	36.8%
	DDR5 16Gb Chip	14.9	18.8	25.7%	22.5	23.3	24.0	20.0%	24.0%	28.0%
	DDR5 16GB UDIMM*	8.7	12.8	47.8%	14.9	15.4	15.4	16.1%	20.5%	20.5%
	DDR4 16GB UDIMM*	10.3	14.2	37.6%	16.6	16.9	17.2	16.7%	18.9%	21.1%
	DDR4 8GB UDIMM*	10.6	14.9	40.0%	17.4	17.8	18.5	16.8%	19.3%	24.4%
Server DRAM	DDR5 96GB RDIMM*	13.9	21.5	54.9%	24.8	25.1	25.3	15.7%	16.7%	17.7%
	DDR5 64GB RDIMM*	13.0	20.1	55.5%	23.2	23.4	23.7	15.2%	16.3%	17.5%
	DDR5 48GB RDIMM*	13.8	21.5	55.5%	24.8	25.0	25.3	15.2%	16.3%	17.5%
	DDR4 64GB RDIMM*	11.5	17.6	52.7%	20.2	20.2	20.2	14.9%	14.9%	14.9%
Mobile DRAM	LPDDR5 16GB Discrete	6.3	11.4	80.6%		12.7			10.7%	
	LPDDR5 12GB Discrete	6.3	11.4	80.2%		12.7			10.7%	
	LPDDR4X 8GB Discrete	6.2	10.9	76.9%		12.2			11.9%	
	LPDDR4X 4GB Discrete	6.2	10.9	77.4%		12.3			11.9%	
	uMCP (LPDDR4X 64Gb+NAND 128GB)**	65.7	119.4	81.9%		131.5			10.1%	
	eMCP (LPDDR4X 32Gb+NAND 64GB)**	34.8	76.6	120.0%		78.4			2.3%	
Specialty DRAM	DDR4 4Gb	12.7	23.3	84.2%	29.0	30.4	31.0	24.3%	30.3%	32.9%
	DDR3 4Gb	12.0	22.3	86.1%	29.0	30.4	30.4	29.9%	36.1%	36.1%
Weighted Average		**10.2**	**16.8**	**65.0%**	**19.6**	**20.0**	**20.1**	**17.0%**	**19.1%**	**20.0%**
Bernstein Estimate (Blended ASP, inc HBM)****										
Samsung		9.5	13.2	38.5%		15.4			16.5%	
SK hynix		8.3	10.6	27.8%		12.7			20.1%	
Micron***		7.1	11.5	62.0%		13.6			17.8%	
CXMT		8.9	14.2	59.6%		16.0			12.3%	
Weighted Average		**8.5**	**12.0**	**41.3%**		**14.1**			**17.5%**	

*: DIMM = Dual In-line Memory Module; UDIMM (Unbuffered DIMM) is the DIMM mostly for desktop PC; RDIMM (Registered DIMM) is mostly for server
**: eMCP (Embedded Multi-Chip Package) is mostly used in mobile applications & is a package standard that extends the eMMC standard (which consists of NAND & controller) to include DRAM too in the package. uMCP (UFS + MCP) is similar to eMCP but replace eMMC with UFS. Their prices include the DRAM, NAND & controller in the package but are classified as part of DRAM statistics as DRAM contributes more value.
***: Micron's quarter ends a month earlier.
****: Our models were last updated in Sep 2026.

Source: DRAMeXchange, Bernstein estimates and analysis

EXHIBIT 2: **Our sample for NAND only includes wafer and eMMC/UFS, which together rose by 9.4% QoQ in Sep. However we understand SSD contract price likely is also rising 20% QoQ, and with that included the overall NAND contract price increase likely can also rise by close to 20% QoQ in 3QCY26.**

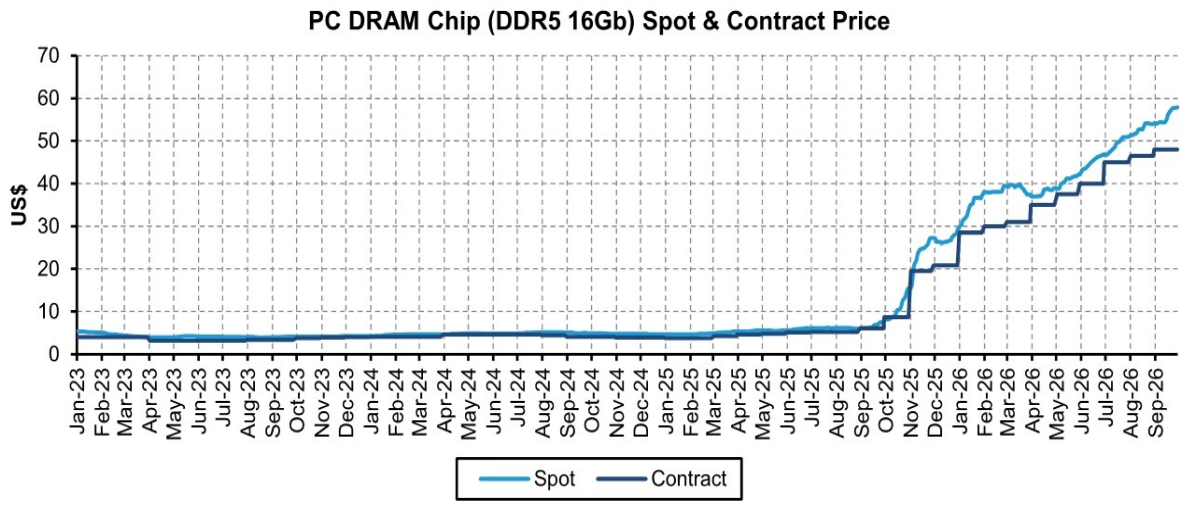
		Price at End of Month						Quarterly Avg		
					MoM					
NAND		Jul-26	Aug-26	Sep-26	Jul-26	Aug-26	Sep-26	2QCY26	3QCY26	QoQ
Spot Price (US$/GB)										
NAND Wafer	1Tb 3D TLC/QLC	0.206	0.254	0.239	8.2%	23.4%	-6.0%	0.197	0.228	16.0%
	512Gb 3D TLC	0.301	0.324	0.303	-3.1%	7.6%	-6.3%	0.322	0.314	-2.7%

		Prior Price			Price for 3QCY26			3QCY26 Over 2QCY26		
NAND		1QCY26	2QCY26	QoQ	Jul-26	Aug-26	Sep-26	Jul-26	Aug-26	Sep-26
Contract Price (US$/GB)										
NAND Wafer	1Tb 3D QLC	0.191	0.235	23.1%	0.237	0.237	0.237	0.8%	0.8%	0.8%
	1Tb 3D TLC	0.197	0.246	24.5%	0.254	0.257	0.262	3.3%	4.6%	6.4%
	512Gb 3D TLC	0.312	0.396	27.2%	0.403	0.413	0.413	1.6%	4.2%	4.2%
eMMC/UFS*	512GB UFS	0.132	0.238	80.0%		0.284			19.1%	
	256GB UFS	0.131	0.236	80.0%		0.286			21.3%	
	128GB TLC eMMC	0.131	0.231	75.4%		0.280			21.2%	
Weighted Average		**0.193**	**0.269**	**39.9%**	**0.292**	**0.295**	**0.296**	**8.4%**	**9.4%**	**9.7%**
Bernstein Estimate (Blended ASP, inc eSSD)****										
Samsung		0.156	0.254	62.4%		0.304			20.0%	
SK hynix		0.168	0.265	57.3%		0.323			22.0%	
Micron**		0.141	0.265	88.0%		0.312			18.0%	
KIOXIA		0.107	0.182	69.8%		0.227			25.0%	
SanDisk		0.242	0.314	29.9%		0.343			9.0%	
Weighted Average		**0.155**	**0.248**	**59.8%**		**0.296**			**19.3%**	

*: eMMC (Embedded Multi Media Card) is a standard that packages NAND dies & controller together. UFS (Universal Flash Storage) is an enhancement over eMMC.
**: Micron's quarter ends a month earlier.
****: Our models were last updated in Sep 2026.
Source: DRAMeXchange, Bernstein estimates and analysis

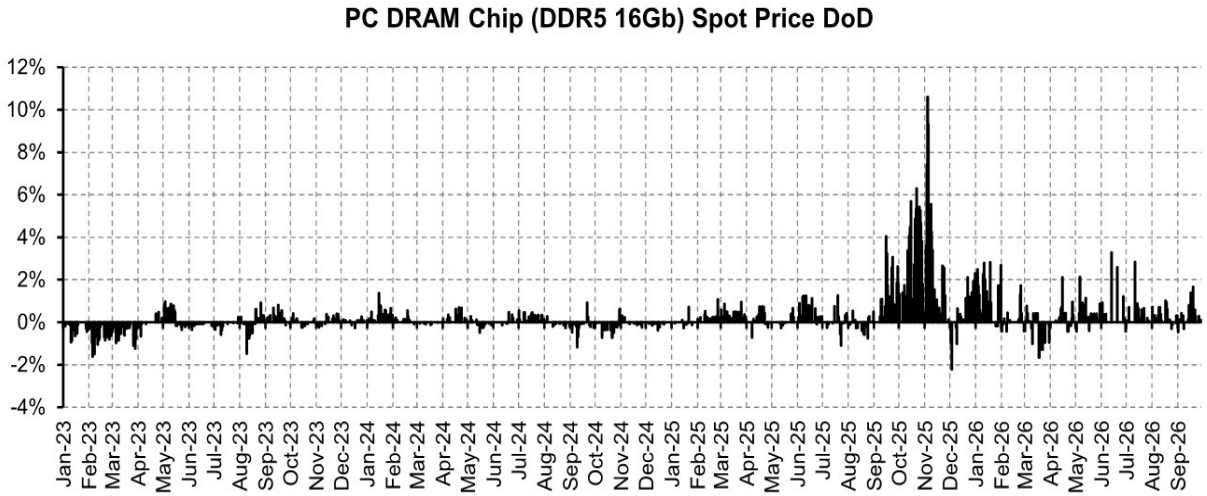
Source: DRAMeXchange, Bloomberg, Bernstein estimates and analysis

EXHIBIT 3: **PC DDR5 DRAM chip spot price continued rallying in Sep.**



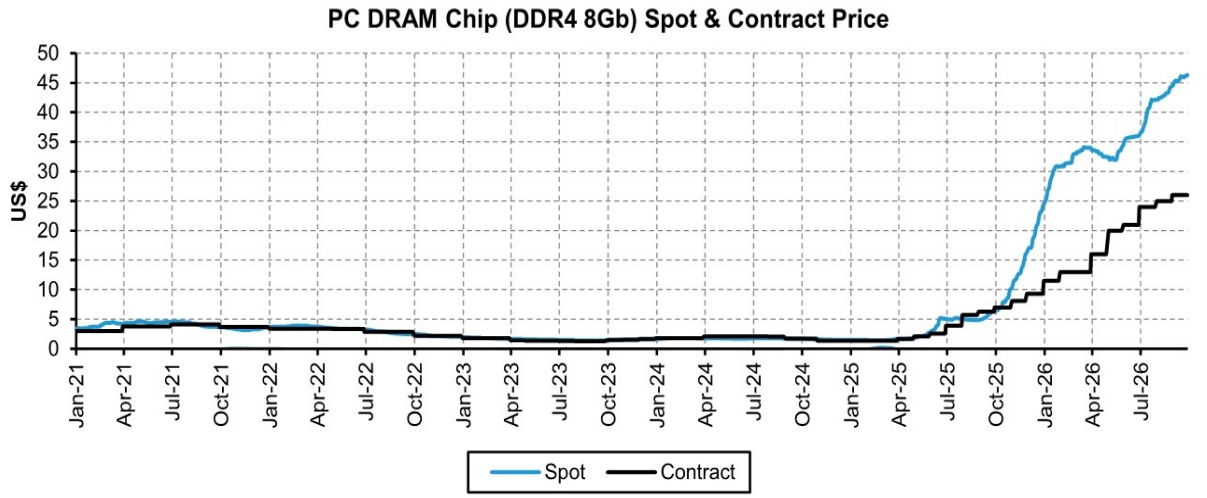
Source: DRAMeXchange and Bernstein analysis

EXHIBIT 4: **PC DDR5 chip spot price saw some correction in late Mar, but it has since been growing almost non-stop.**



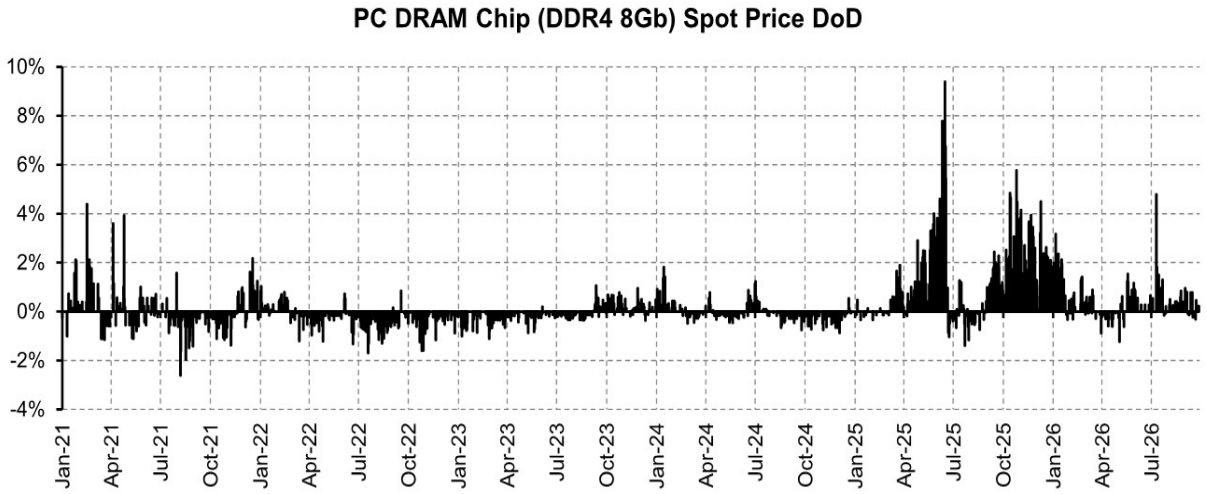
Source: DRAMeXchange & Bernstein analysis

EXHIBIT 5: **PC DDR4 chip spot price also continued rising in Sep.**



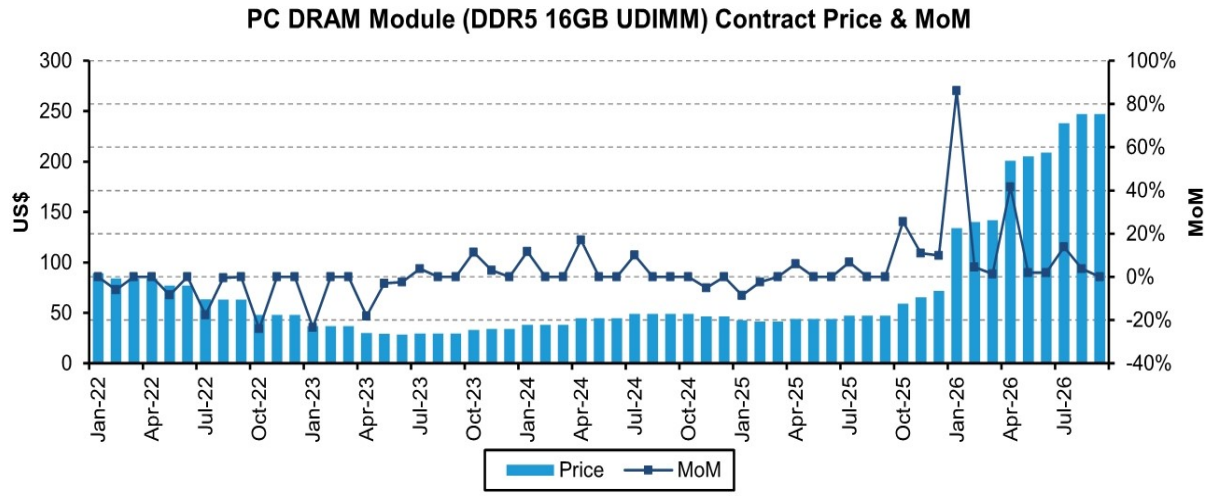
Source: DRAMeXchange & Bernstein analysis

EXHIBIT 6: **Growth momentum slowed in Aug but remained quite robust for PC DDR4 chip spot price.**



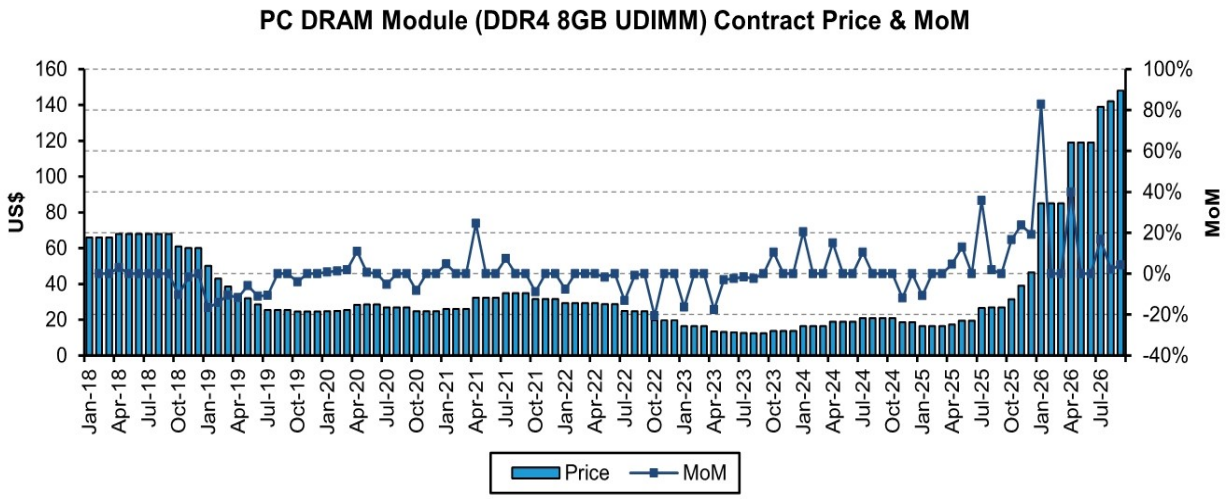
Source: DRAMeXchange & Bernstein analysis

EXHIBIT 7: **PC DDR5 module contract price was flat in Sep as most of negotiations had wrapped up in earlier months.**



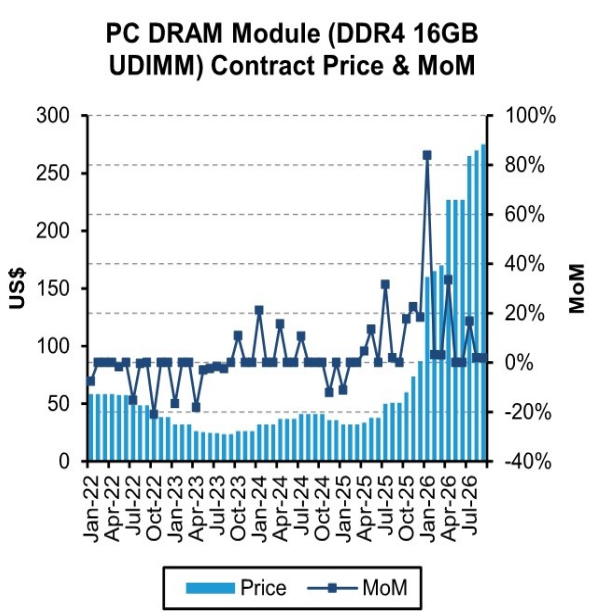
Source: DRAMeXchange & Bernstein analysis

EXHIBIT 8: **PC DDR4 module contract price went up just slightly in Sep.**



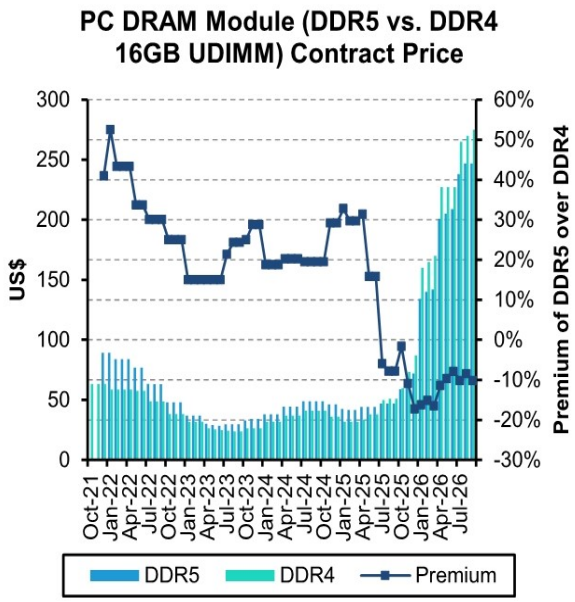
Source: DRAMeXchange & Bernstein analysis

EXHIBIT 9: **16GB DDR4 modules contract price grew at similar rate to 8GB.**



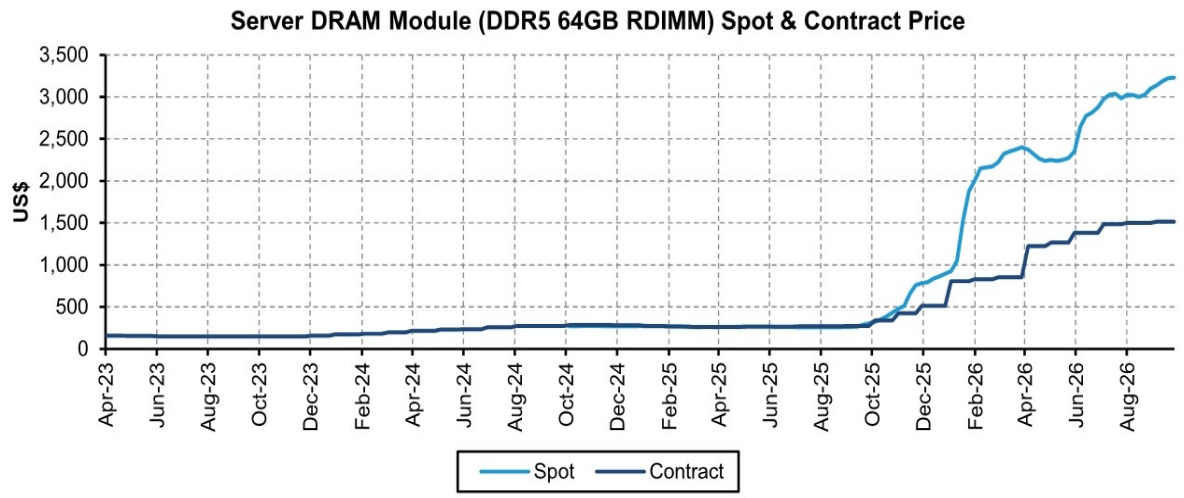
Source: DRAMeXchange & Bernstein analysis

EXHIBIT 10: **PC DDR5 price discount vs. DDR4 was at 10%.**



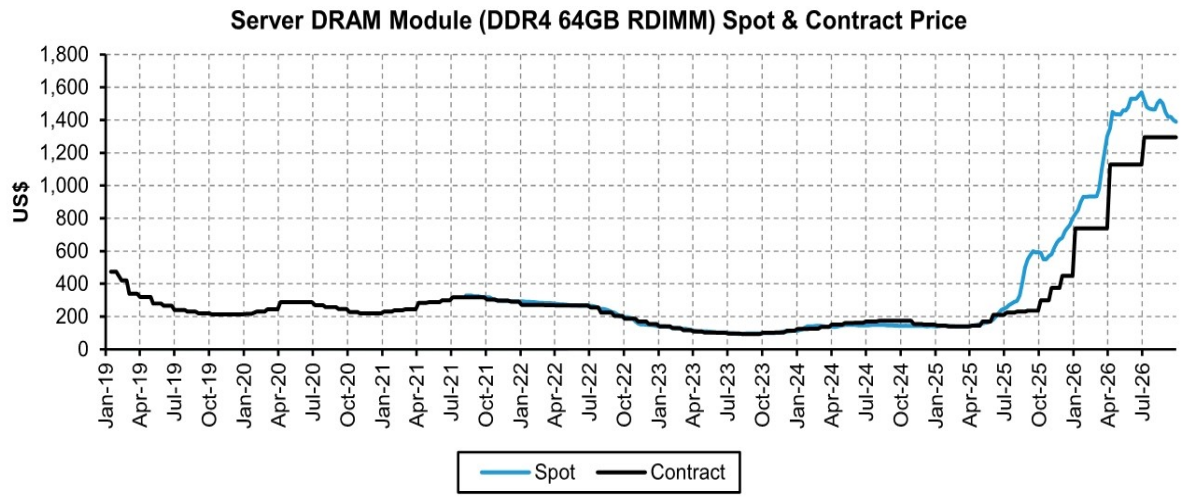
Source: DRAMeXchange & Bernstein analysis

EXHIBIT 11: **Server DDR5 module spot price also continued growing in Sep and remained considerably above contract price.**



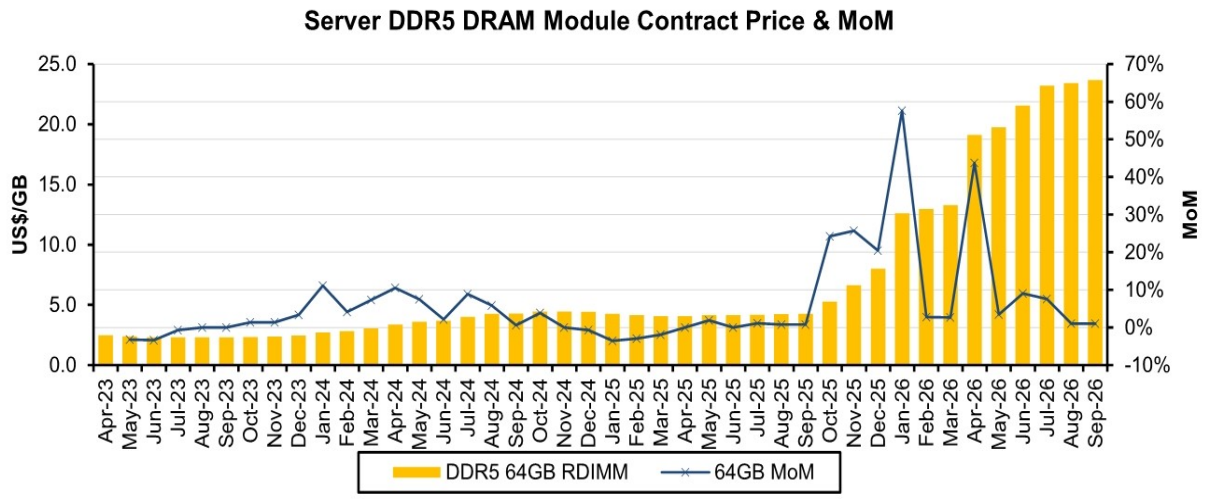
Source: DRAMeXchange & Bernstein analysis

EXHIBIT 12: **Server DDR4 module spot price however remained softer in Sep.**



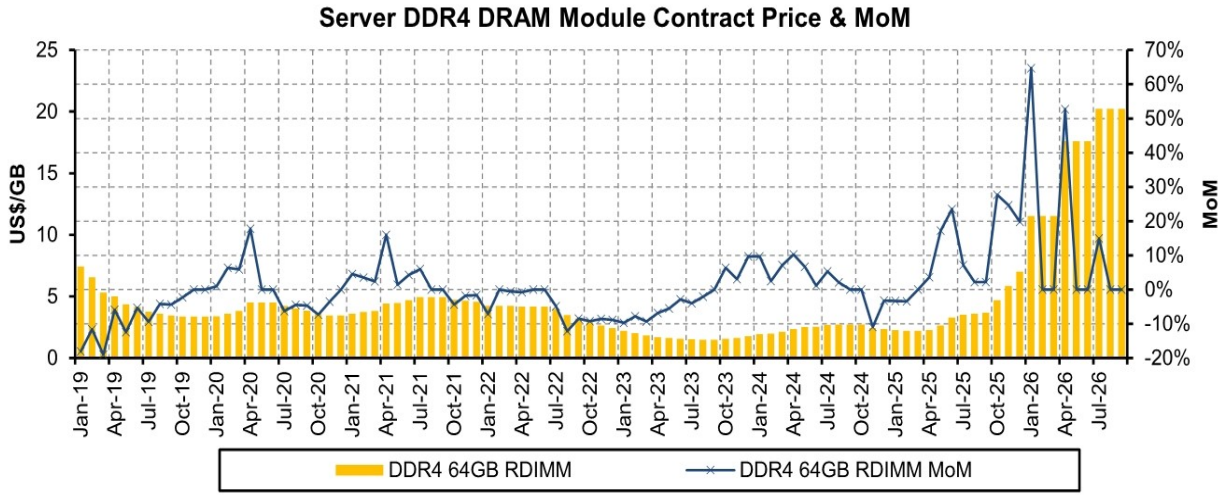
DRAMeXchange started to track server spot price in Aug CY2021 as its trading volume became meaningful.
Source: DRAMeXchange & Bernstein analysis

EXHIBIT 13: **Sep server DDR5 module contract price was largely stable MoM.**



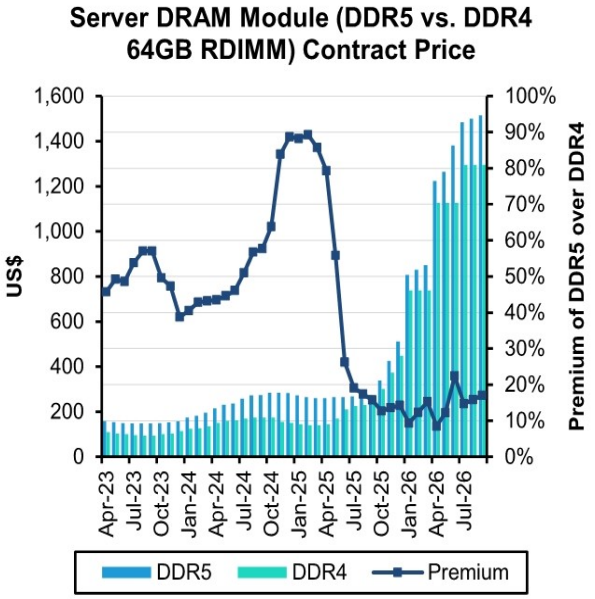
Source: DRAMeXchange and Bernstein analysis

EXHIBIT 14: **Server DDR4 module contract price was flat MoM too.**



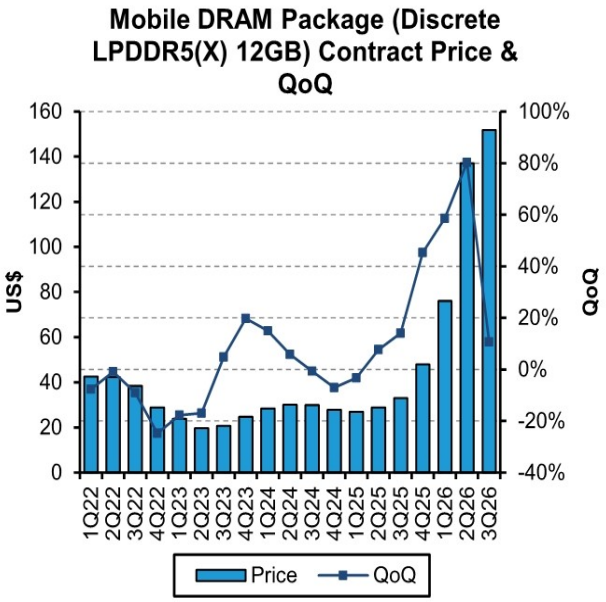
Source: DRAMeXchange & Bernstein analysis

EXHIBIT 15: **Server DDR5 premium over DDR4 was at 17%.**



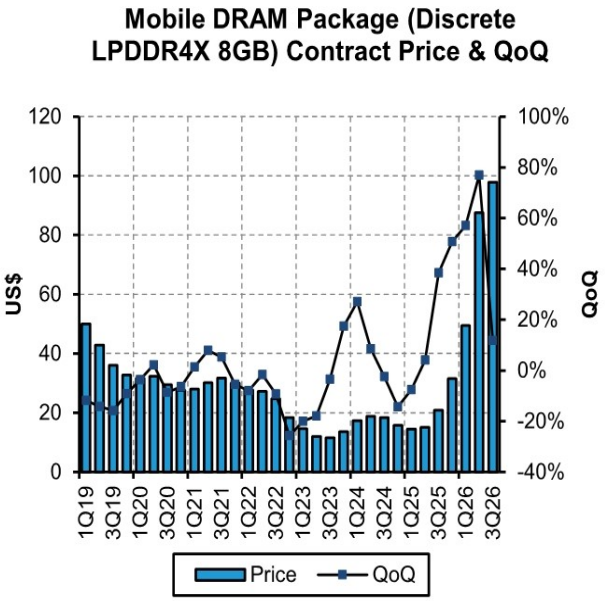
Source: DRAMeXchange and Bernstein analysis

EXHIBIT 16: **LPDDR5 contract price was estimated to rise by only 11% in 3QCY26.**



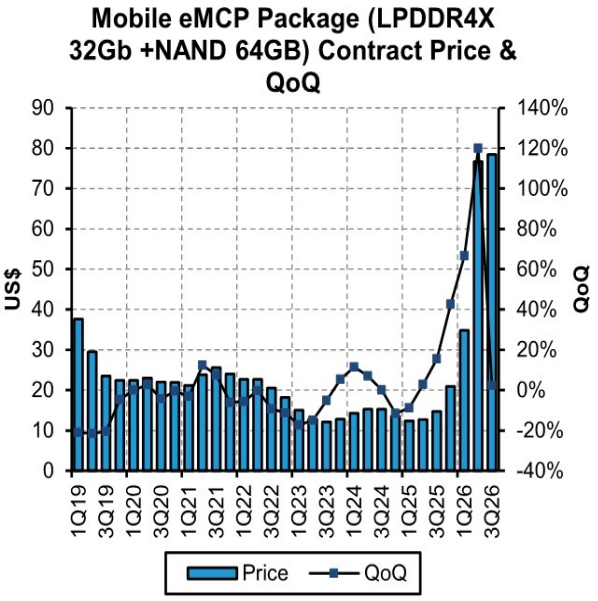
Source: DRAMeXchange and Bernstein analysis

EXHIBIT 17: **LPDDR4 price also estimated to rise by just 12% QoQ.**



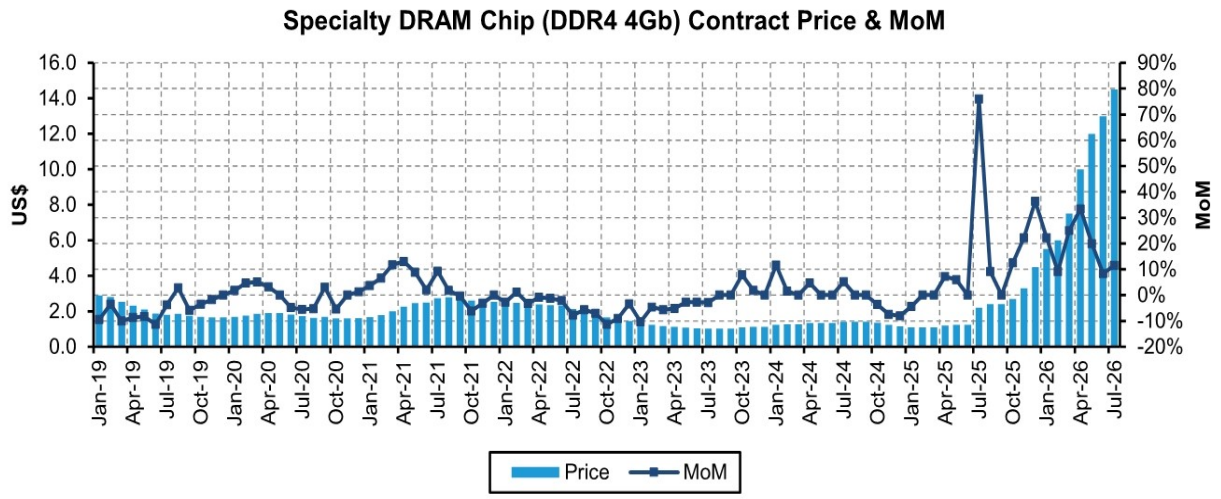
Source: DRAMeXchange and Bernstein analysis

EXHIBIT 18: **The price of low-end eMCP packages was largely flattish at 2.3% up QoQ for 3QCY26.**



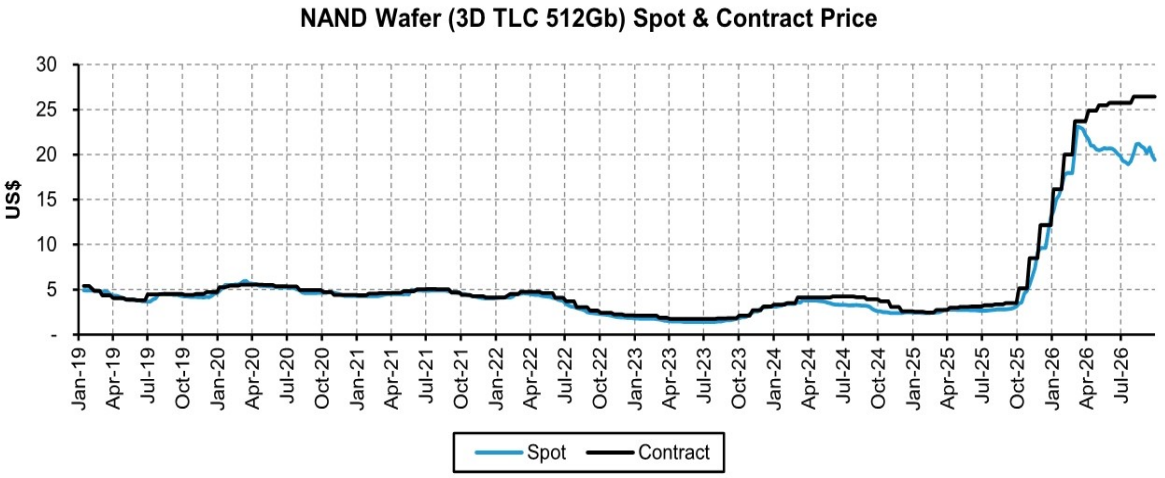
Source: DRAMeXchange & Bernstein analysis

EXHIBIT 19: **Consumer DRAM shortage was likely more acute, with contract price rising 5% MoM.**



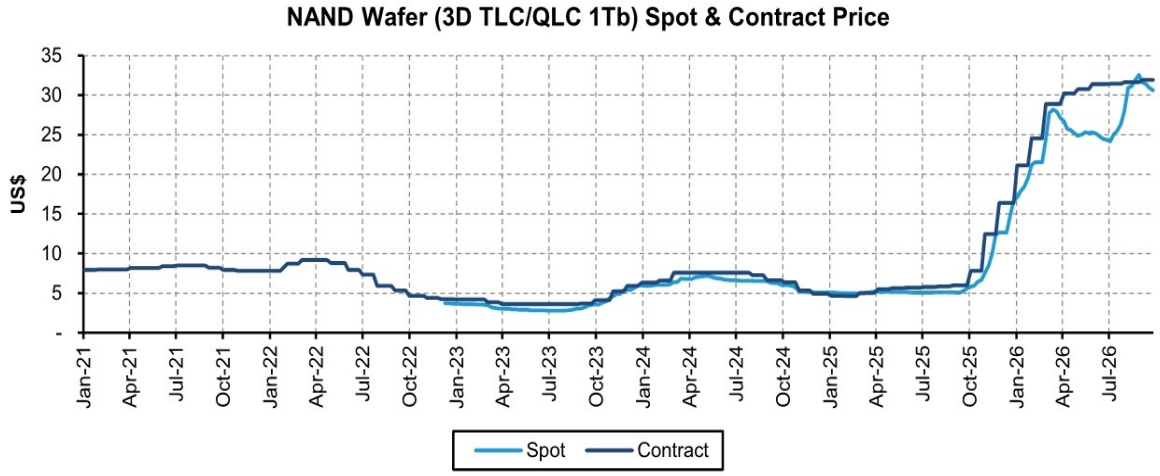
Source: DRAMeXchange & Bernstein analysis

EXHIBIT 20: **NAND 512Gb spot price fell again in Sep after brief recovery in Aug..**



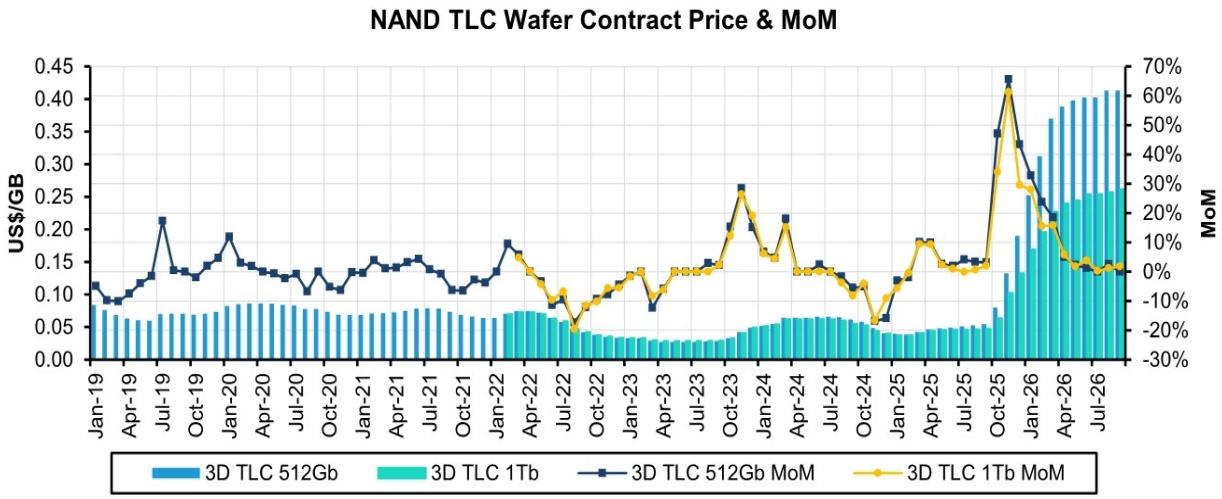
Source: DRAMeXchange & Bernstein analysis

EXHIBIT 21: **1Tb wafer spot price saw a mild correction after soaring in Aug.**



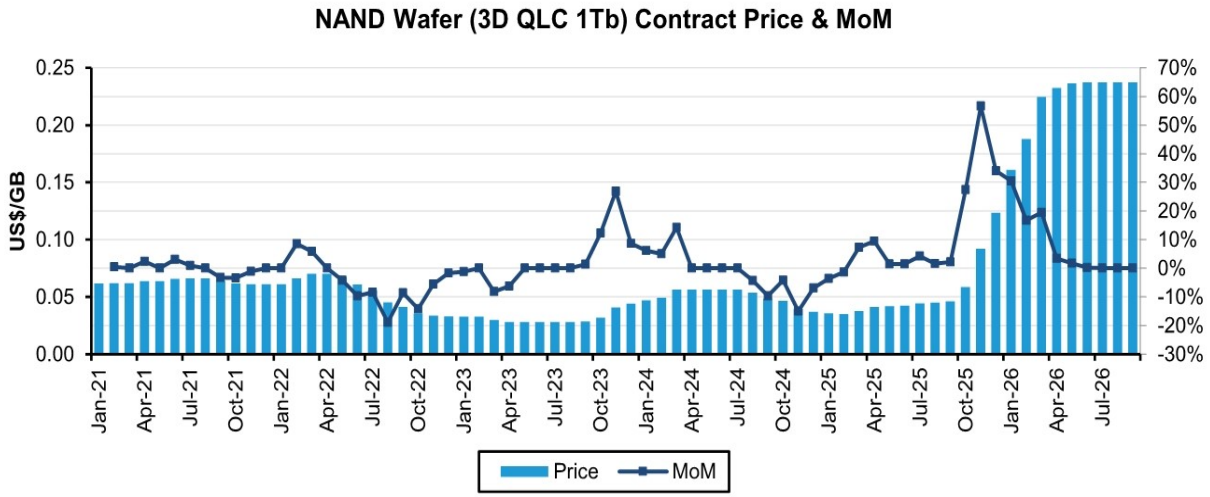
Source: DRAMeXchange and Bernstein analysis

EXHIBIT 22: **TLC NAND wafer contract price was broadly flattish in Sep due to sluggish demand from consumer segments.**



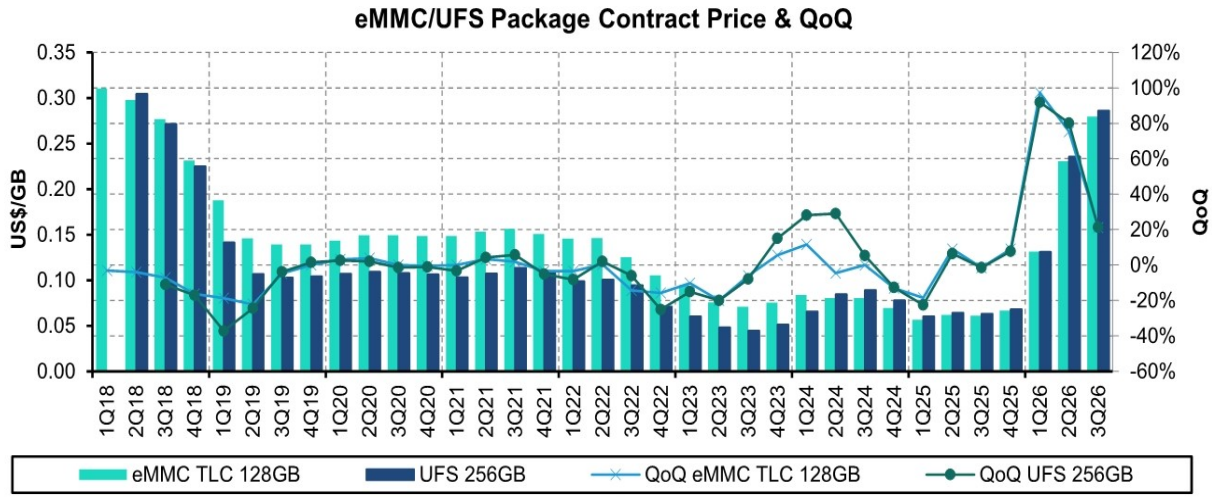
Source: DRAMeXchange & Bernstein analysis

EXHIBIT 23: **QLC NAND wafer contract price was also flattish.**



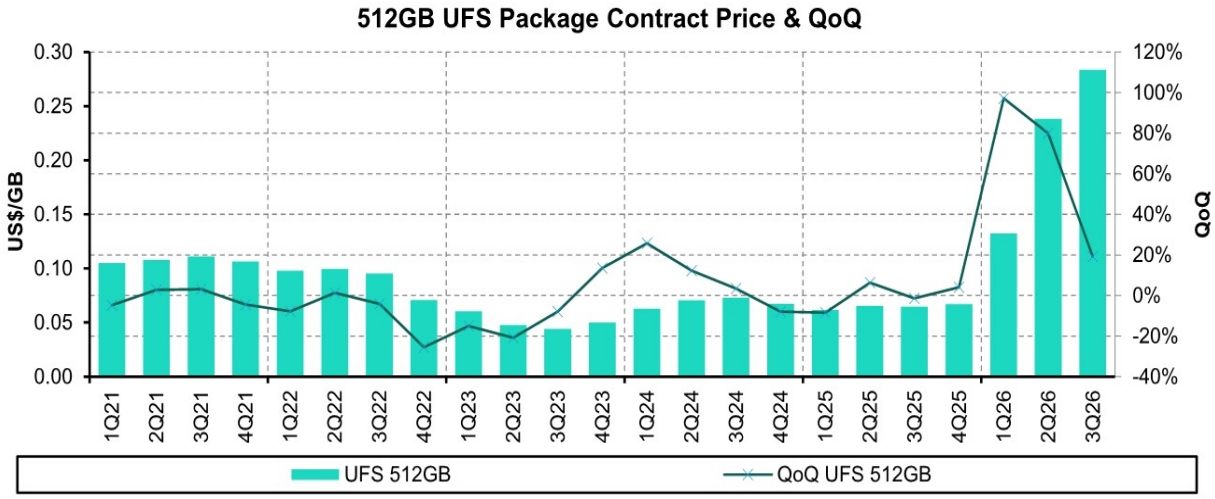
Source: DRAMeXchange & Bernstein analysis

EXHIBIT 24: **Mobile NAND contract price for 3QCY26 is estimated to increase by 20% QoQ, notably slower vs 2Q as customers cut demand and pushed back on price hikes.**



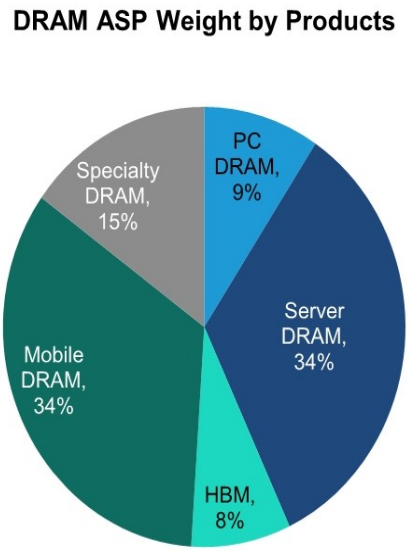
Source: DRAMeXchange & Bernstein analysis

EXHIBIT 25: **High-density 512GB UFS contract price is also expected to rise by ~20% in 3QCY26.**



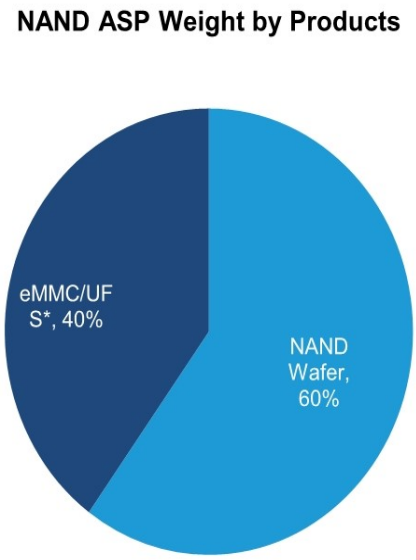
Source: DRAMeXchange and Bernstein analysis

EXHIBIT 26: **Our industry ASP is a weighted average of different products based on the size of their demand. We then further adjust it for HBM.**



Source: Bernstein analysis

EXHIBIT 27: **We allocate 40% & 60% to eMMC/UFS & wafer, respectively, to derive the industry NAND ASP. eSSD is then considered in addition.**



Source: Bernstein analysis

Further Reading Materials

- 1 Oct 2026 - **Micron 4QFY26: Expecting shortage to sustain into CY28**
- 29 Sep 2026 - **Global Memory: Cycle is still elevated, but beware of the long-term threat from China**
- 21 Sep 2026 - **Korea Memory Export Tracker (Aug): Samsung remained ahead of SK hynix in HBM momentum**
- 21 Sep 2026 - **China Next Winners: CXMT - Redrawing the Memory Map - Initiating with Outperform**
- 28 Aug 2026 - **Global Memory: An AI memory primer**

- 3 Aug 2026 - **2Q26 AI Server Pulse: Summertime Cool-Down**
- 31 Jul 2026 - **KIOXIA 1QFY26: Can buyback help KIOXIA avoid volatility?**
- 30 Jul 2026 - **Samsung 2Q26: Poised to Lead in HBM in 2H26?**
- 29 Jul 2026 - **SK hynix 2Q26: ASP should improve in 2H26. Overall thesis intact**
- 27 Jul 2026 - **Global Memory, NVIDIA & Broadcom: Quick thoughts on strategic partnerships**
- 20 Jul 2026 - **Global Memory: New Memory LTAs Part 3 - Bull vs Bear Debate - Webinar slides, transcript and summary**
- 30 June 2026 - **Memory: What do New Memory LTAs mean for sustainability of earnings and multiples? Raising SNDK TP to $3000**
- 15 June 2026 - **KIOXIA: All parties come to an end - Underperform**
- 2 June 2026 - **KIOXIA Investor Day: 22% bit CAGR good enough?**
- 1 May 2026 - **Sandisk FQ3'26: Nosebleed ASPs (now locked in); Raise estimates and TP to $1700, Reiterate Outperform (top ST pick)**
- 9 Apr 2026 - **Sandisk: How high can estimates and the stock go? Raising estimates and TP to $1,250, with blue-sky scenario at $3000**
- 17 Mar 2026 - **Asia Semiconductors & Hardware: Stronger & longer - 2026 Tech Tour takeaways**
- 13 Mar 2026 - **Global Industrial Gases & Semis: Assessing the helium impact**
- 27 Jan 2026 - **AI Value Chain: Putting it all together - how much AI upside does each name really have, and who might be an underappreciated winner?**
- 2 Jan 2026 - **Asia Semiconductors & Global Memory: 2026 is still all about AI**
- 11 Dec 2025 - **Expert Insight: How much memory do AI Data Centers need?**
- 24 Nov 2025 - **Asian Semis & Global Memory: Two findings, one simulation & one model for AI**
- 27 Oct 2025 - **AI Value Chain: How much does a GW of data center capacity actually cost, and what goes into it?**
- 1 Sep 2025 - **Global Semicap and Memory - US revokes Samsung and SK hynix semicap license waivers for their China Fabs**
- 21 Aug 2025 - **KIOXIA: Decipher the complex JV with SanDisk**
- 29 Jul 2025 - **Samsung: Dimensioning the contribution of the Tesla project on Samsung & ASML**
- 13 Jun 2025 - **KIOXIA: The Last Samurai - initiating with Underperform**
- 6 Dec 2024 - **Global Memory: Decoupling in memory? A quantitative assessment**
- 21 Nov 2024 - **Global Memory: Will China/YMTC surprise us in NAND?**
- 16 Sep 2024 - **Global Memory: Is Samsung still the memory leader?**
- 8 Jul 2024 - **Global Semiconductors: AI semiconductor roadmap - 3 charts & 7 investment implications**
- 1 Jun 2023 - **10 FAQs on Investing in Semiconductors for Generative AI**

- 4 Mar 2022 - **Global Memory: Cornerstone of the Data Economy**
- 25 Oct 2021 **Global Memory: The cornerstone of the data economy but painful cyclicality - Initiating with Underperform**

I. REQUIRED DISCLOSURES

References to "Bernstein" or the “Firm” in these disclosures relate to the following entities: Bernstein Institutional Services LLC (April 1, 2024 onwards), Sanford C. Bernstein & Co., LLC (pre April 1, 2024), Bernstein Autonomous LLP, BSG France S.A. (April 1, 2024 onwards), Sanford C. Bernstein (Hong Kong) Limited 盛博香港有限公司, Sanford C. Bernstein (Canada) Limited, Sanford C. Bernstein (India) Private Limited (SEBI registration no. INH000006378), Sanford C. Bernstein (Singapore) Private Limited, Sanford C. Bernstein Japan KK（サンフォード・C・バーンスタイン株式会社）and analysts employed by Société Générale Africa Technologies & Services to produce Bernstein research under a Global Services Agreement in place between Bernstein and Société Générale.

Bernstein is part of a joint venture between Société Générale (SG) and AllianceBernstein, L.P. (AB). Unless specifically noted otherwise, for purposes of these disclosures, references to Bernstein’s “affiliates” relate to both SG and AB and their respective affiliates.

VALUATION METHODOLOGY

Samsung Electronics Co Ltd

We value Samsung Electronics with 1.7x of NTM BVPS and arrive at price target of KRW440,000.

SK Hynix Inc

We value SK hynix with 2.1x of NTM BVPS and arrive at price target of KRW2,700,000.

Micron Technology Inc

We value Micron with 7.6x of forward 5Q-8Q EPS of US$171.1 and arrive at price target of US$1,300.

CXMT Corp

We value CXMT at 10x blended 2-year forward EPS (forward 5Q-8Q) of CNY7.16 and arrive our price target of CNY 70.

KIOXIA Holdings Corp

We value KIOXIA with 3.7x of 1-year forward EPS of ¥13,243 and arrive at price target of ¥49,000.

SanDisk Corp

We value SNDK at $3000 on 11x FY28 EPS, or 14x through cycle EPS (FY26-30 avg EPS).

RISKS

Samsung Electronics Co Ltd

The biggest downside risk to our target price is an earlier end of favorable pricing environment, which can be a result of weaker demand or higher supply. Investor sentiment and hence the valuation rewarded by investors is also a risk. China's progress in memory, especially in NAND, is a downside risk too.

SK Hynix Inc

The biggest downside risk to our target price is an earlier end of favorable pricing environment, which can be a result of weaker demand or higher supply. Investor sentiment and hence the valuation rewarded by investors is also a risk. China's progress in memory, especially in NAND, is a downside risk too.

Micron Technology Inc

The biggest downside risk to our target price is an earlier end of favorable pricing environment, which can be a result of weaker demand or higher supply. Investor sentiment and hence the valuation rewarded by investors is also a risk. China's progress in

memory, especially in NAND, is a downside risk too.

CXMT Corp

The downside risk to our target price includes 1) increased challenges in acquiring semiconductor equipment needed for capacity expansion, 2) faster-than-expected expansion in global DRAM supply 3) significant slowdown in AI-related DRAM demand causing shortage to revert into oversupply and DRAM prices to decrease

KIOXIA Holdings Corp

Upside risk to our target price include 1) stronger than expected NAND demand growth, which likely would lead to better NAND pricing and hence company earnings, 2) favorable policy support from Japanese government such as capex subsidies, and 3) better than expected cost reduction

SanDisk Corp

The biggest risks to the downside on Sandisk and to our price target are that: 1) Near-term numbers look high and face cyclical downside from NAND; 2) SNDK's disclosures and broader investor communications have been confusing, potentially dissuading more quality-focused investors; and 3) NAND weakness could extend beyond the current cycle and be more structural, in which case Sandisk's DCF value could be structurally lower and the impaired value of its assets may be materially below replacement cost.

RATINGS DEFINITIONS, BENCHMARKS AND DISTRIBUTION

EQUITY RATINGS DEFINITIONS

Bernstein brand

The Bernstein brand rates stocks based on forecasts of relative performance for the next 12 months versus the S&P 500 for stocks listed on the U.S. and Canadian exchanges, versus the Bloomberg Europe Developed Markets Large and Mid Cap Price Return Index EUR (EDME) for stocks listed on the European exchanges and emerging markets exchanges outside of the Asia Pacific region, versus the Bloomberg Japan Large and Mid Cap Price Return Index USD (JPL) for stocks listed on the Japanese exchanges, and versus the Bloomberg Asia ex-Japan Large and Mid Cap Price Return Index (ASIAX) for stocks listed on the Asian (ex-Japan) exchanges -unless otherwise specified.

The Bernstein brand has three categories of ratings:

- Outperform: Stock will outpace the market index by more than 15 pp
- Market-Perform: Stock will perform in line with the market index to within +/-15 pp
- Underperform: Stock will trail the performance of the market index by more than 15 pp

Coverage Suspended: Coverage of a company under the Bernstein research brand has been suspended. Ratings and price targets are suspended temporarily, are no longer current, and should therefore not be relied upon.

Not Rated: A rating assigned when the stock cannot be accurately valued, or the performance of the company accurately predicted, at the present time. The covering analyst may continue to publish research reports on the company to update investors on events and developments.

Not Covered (NC) denotes companies that are not under coverage.

Bernstein brand stock ratings are based on a 12-month time horizon.

Autonomous brand – common stocks

The Autonomous brand rates common stocks as indicated below. As our benchmarks we use the Bloomberg Europe 600 Financials Price Return Index (E600BK) and Bloomberg Europe Dev Mkt Financials Large and Mid Cap Price Ret Index EUR (EDMFI) index for developed European banks and Payments, the Bloomberg Europe 600 Insurance Price Return Index (E600IN) for European insurers, the S&P 500 and S&P Financials for US banks and Payments coverage, S5LIFE for US Insurance, the S&P Insurance Select Industry (SPSIINS) for US Non-Life Insurers coverage, the Bloomberg Emerging Markets Financials Large, Mid and Small Cap Price Return Index (EMLSF) for emerging market banks and insurers and Payments, and the Bloomberg Japan

Financials Large & Mid Cap Price Return Index (JPFILM) for Japanese Financials. Ratings are stated relative to the sector (not the market).

The Autonomous brand has three categories of common stock ratings:

- Outperform (OP): Stock will outpace the relevant index by more than 10 pp
- Neutral (N): Stock will perform in line with the market index to within +/-10 pp
- Underperform (UP): Stock will trail the performance of the relevant index by more than 10 pp

Coverage Suspended: Coverage of a company under the Autonomous research brand has been suspended. Ratings and price targets are suspended temporarily, are no longer current, and should therefore not be relied upon.

Not Rated: A rating assigned when the stock cannot be accurately valued, or the performance of the company accurately predicted, at the present time. The covering analyst may continue to publish research reports on the company to update investors on events and developments.

Those denoted as 'Feature' (e.g., Feature Outperform FOP, Feature Under Outperform FUP) are our core ideas.

Not Covered (NC) denotes companies that are not under coverage.

Autonomous brand common stock ratings are based on a 12-month time horizon.

Autonomous brand – preferred stocks

The Autonomous brand has three categories of preferred stock ratings:

- Outperform (OP): The total return of the preferred instrument is expected to outperform preferred securities of other issuers operating in similar sectors or rating categories over the next six months.
- Neutral (N): The total return of the preferred instrument is expected to perform in line with preferred securities of other issuers operating in similar sectors or rating categories over the next six months.
- Underperform (UP): The total return of the preferred instrument is expected to underperform preferred securities of other issuers operating in similar sectors or rating categories over the next six months.

Autonomous preferred stock ratings are based on a 6-month time horizon.

AUTONOMOUS CREDIT RESEARCH

Where this report contains investment recommendations for credit instruments, as defined in article 3(1)(35) of the Market Abuse Regulation, the information below is presented to comply with its disclosure requirements.

The report may also include reference(s) to published opinions by other Autonomous or Bernstein analysts covering the equity securities of the issuer(s) referenced herein. Please note an investment recommendation for credit instruments published by the author(s) of this report may differ from the published view of the analyst covering equity securities for the issuer(s) contained in this report and vice versa.

CREDIT RATINGS DEFINITIONS

The Autonomous brand has three categories of credit ratings:

- Credit Outperform (C-OP): The total return of the Reference Credit Instrument is expected to outperform the credit spread of bonds of other issuers operating in similar sectors or rating categories over the next six months.
- Credit Neutral (C-N): The total return of the Reference Credit Instrument is expected to perform in line with the credit spread of bonds of other issuers operating in similar sectors or rating categories over the next six months.
- Credit Underperform (C-UP): The total return of the Reference Credit Instrument is expected to underperform the credit spread of bonds of other issuers operating in similar sectors or rating categories over the next six months.

Autonomous credit ratings are based on a 6-month time horizon.

A list of all investment recommendations produced by the author(s) of this report alongside credit ratings history are available upon request.

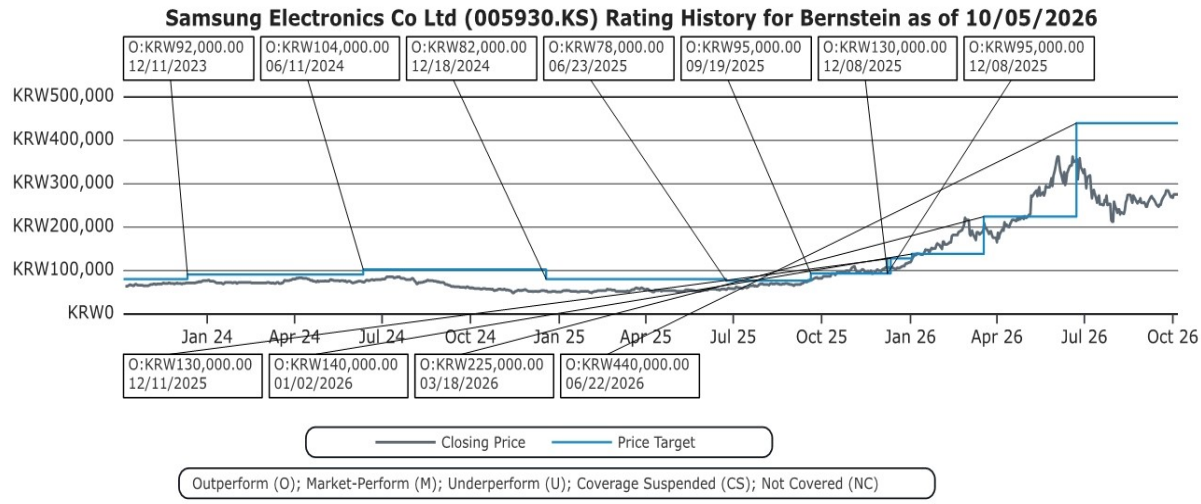
It is at the sole discretion of the Firm as to when to initiate, update and cease research coverage. The Firm has established, maintains and relies on information barriers to control the flow of information contained in one or more areas (i.e. the private side) within the Firm, and into other areas, units, groups or affiliates (i.e. public side) of the Firm

DISTRIBUTION OF EQUITY RATINGS/INVESTMENT BANKING SERVICES

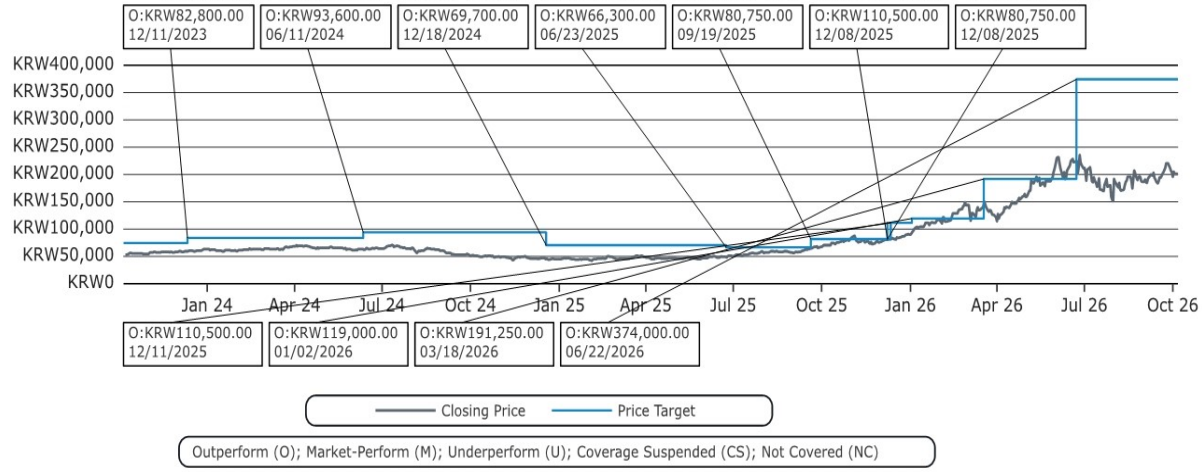
Equity Rating	Market Abuse Regulation (MAR) and FINRA Rating Category	Global Rating Distribution	Investment Banking Relationships*
Outperform	BUY	52.3%	14.2%
Market-Perform (Bernstein Brand) Neutral (Autonomous Brand)	HOLD	35.6%	16.1%
Underperform	SELL	12.1%	13.6%

* These figures represent the percentage of companies within each equity rating category for which affiliates of Bernstein have provided investment banking services within the previous 12 months.
As of September 30, 2026. All figures are updated quarterly.

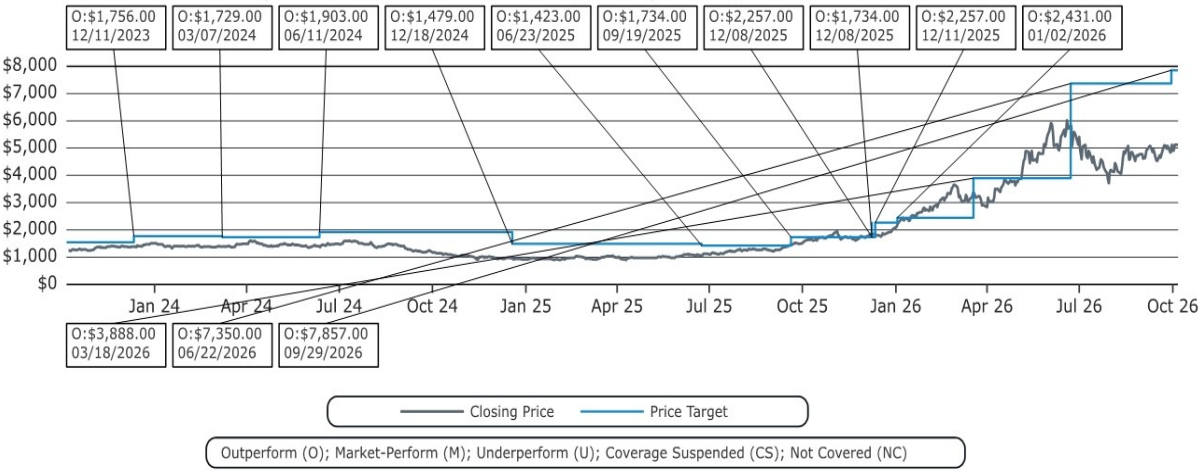
PRICE CHARTS / RATINGS AND PRICE TARGET HISTORY



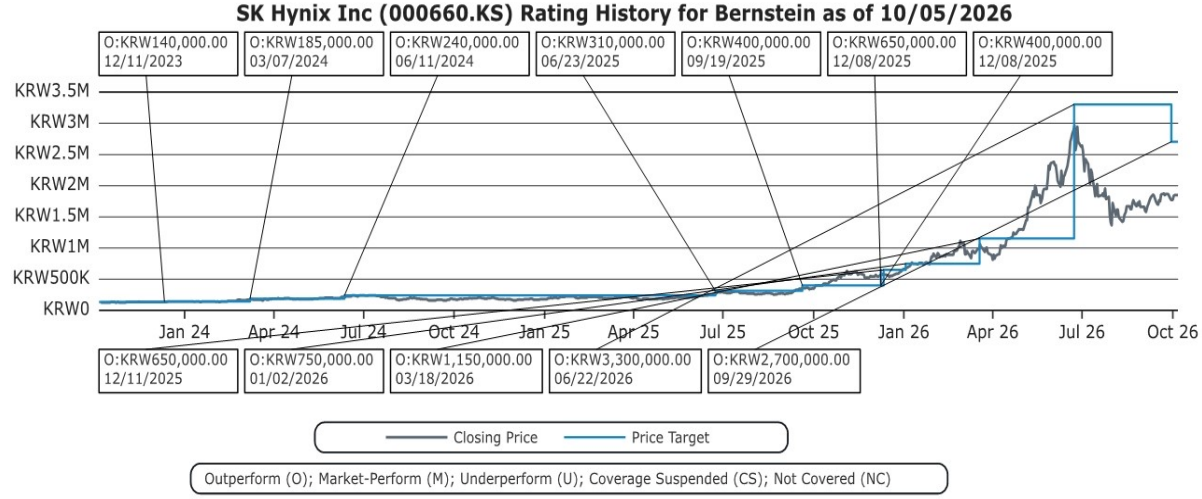
Samsung Electronics Co Ltd (005935.KS) Rating History for Bernstein as of 10/05/2026



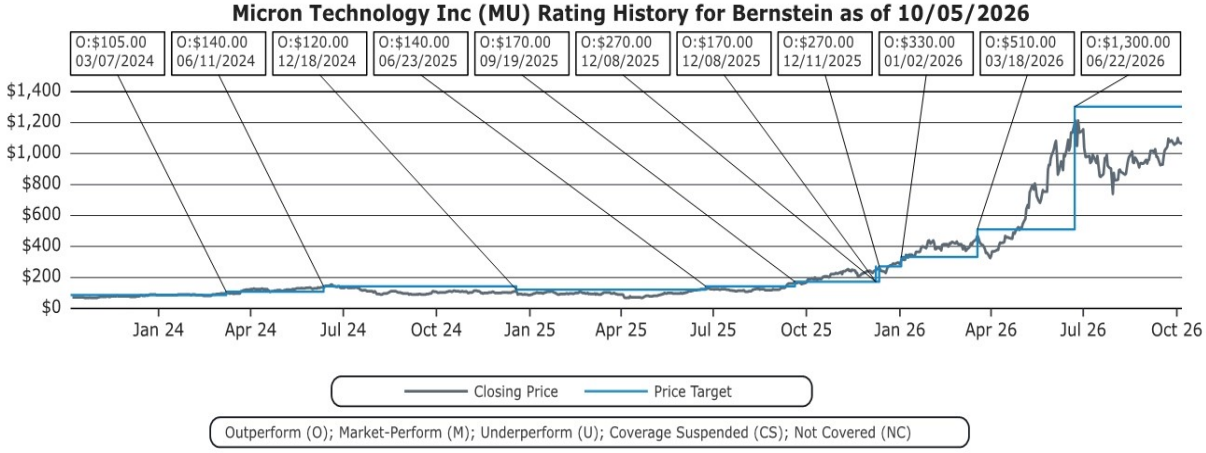
Samsung Electronics Co Ltd (SMSN.LI) Rating History for Bernstein as of 10/05/2026



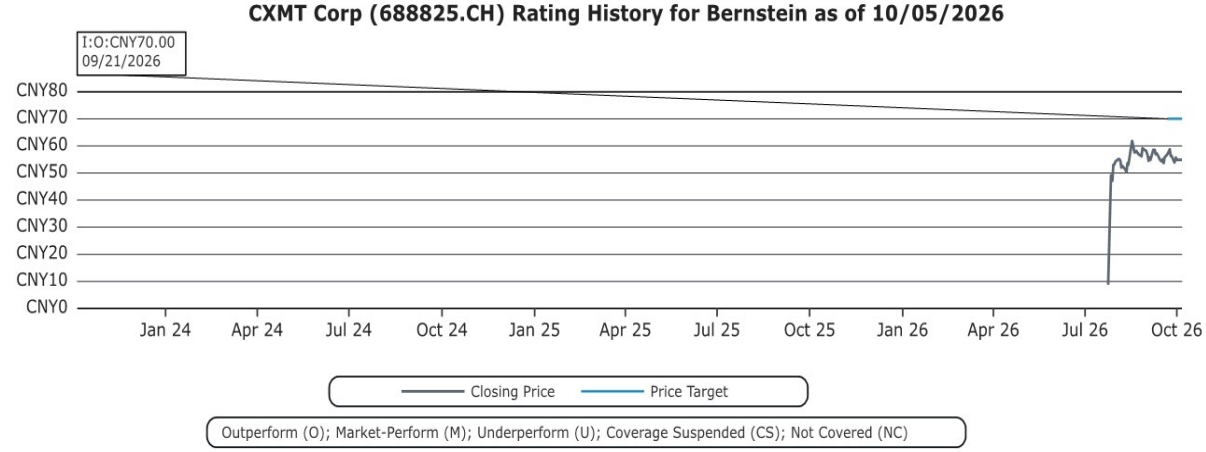
SK Hynix Inc (000660.KS) Rating History for Bernstein as of 10/05/2026



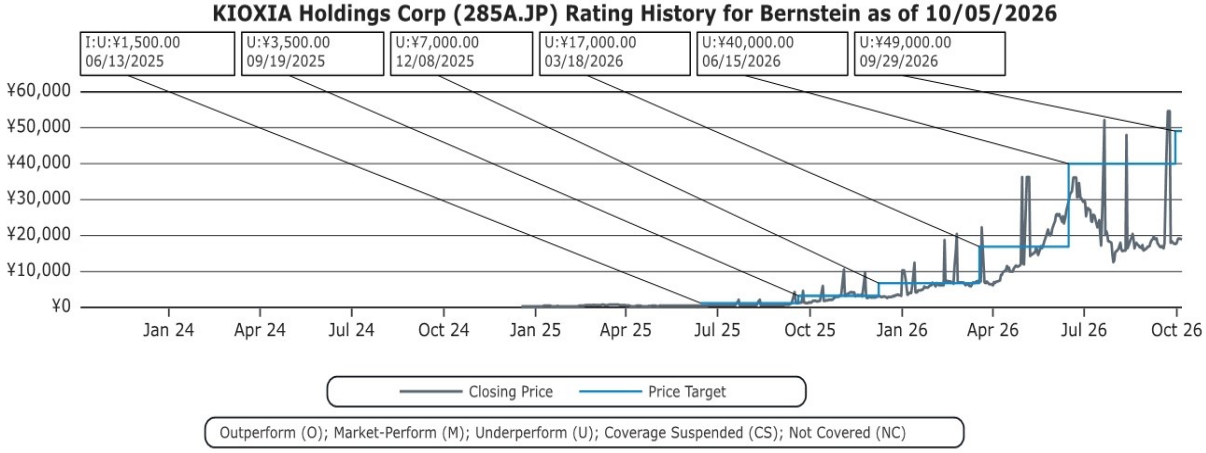
Micron Technology Inc (MU) Rating History for Bernstein as of 10/05/2026

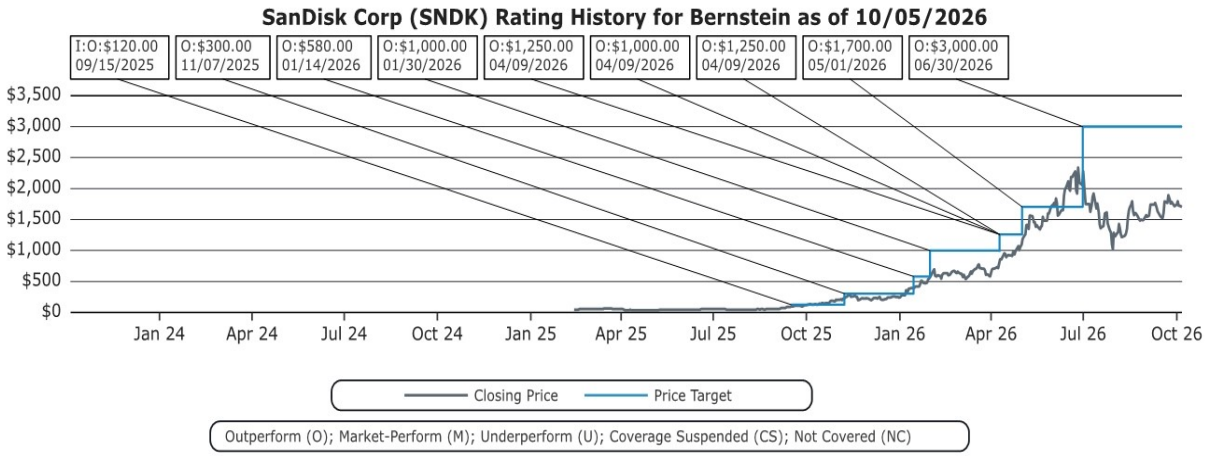


CXMT Corp (688825.CH) Rating History for Bernstein as of 10/05/2026



KIOXIA Holdings Corp (285A.JP) Rating History for Bernstein as of 10/05/2026





All price target and closing price data in the chart(s) above are denominated in the currency noted in the Ticker Table of this report.

CONFLICTS OF INTEREST

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