

Memory sector

Surge in general server procurement fueling a memory supercycle

Key message

1. Memory bit demand driven by general server purchases by US CSPs.
2. Soaring memory prices will significantly impact the recovery of PC and smartphone demand.
3. We expect memory prices to continue rising in 2026F.

Event

We expect strong demand from US CSPs for general server will drive continued memory price hikes next year.

Impact

US CSP general server procurement drives memory price demand. Since September, DDR5 16Gb spot prices have surged more than threefold. While robust AI demand is the primary driver, accelerating orders for general server have amplified price hikes and heightened shortage concerns. Our supply chain checks indicate that US CSPs' procurement plans for next year far exceed prior expectations and historical averages, with Microsoft (US) being the most aggressive. We expect 2026F US CSP general server shipments to grow by 50% YoY, driven by: (1) CSPs' extended depreciation periods starting in 2022, creating a replacement peak in the next two years; (2) general server budgets were constrained by AI investments over the past two years; and (3) some 2027F demand is being pulled forward to address expected shortages. Consequently, we raise our 2026F server DRAM bit demand forecast by 17% to 20.74bn GB (up 45% YoY), increasing its share of total DRAM demand from 38% in 2025F to 47% in 2026F. Similarly, we revise up 2026F enterprise SSD (server SSD) bit demand by 6% to 466.5bn GB, up 61.7% YoY (see Figure 8). Its share of total NAND Flash demand will rise from 29% in 2025F to 40% in 2026F, surpassing smartphone to become the largest application segment.

Soaring memory prices will significantly impact recovery of PC & smartphone demand.

Since DRAM and NAND Flash account for 10–20% of the BOM costs of PC and smartphone, continued price hikes will force brands and OEMs to raise end-product prices, thereby suppressing shipments next year. In terms of smartphone content, although Apple (US) is expected to mass-produce 2TB models in 2026F, Android vendors may reduce DRAM and SSD content, or even downgrade other IC components, to manage cost pressures. PC OEMs are likely to adopt similar strategies to control overall system costs. We forecast the share of DRAM bit demand of smartphone and PC to decline from 36% and 10% this year to 29% and 8% in 2026F, respectively. Likewise, smartphone and PC SSD demand as a share of total NAND Flash bit demand will fall from a respective 32% and 21% to 27% and 17%.

We expect memory prices to continue rising in 2026F. Strong demand from general server makers will offset memory price headwinds from lower PC and smartphone sales. Based on our supply-demand model, we expect memory to remain in undersupply through next year, with the tightest supply conditions in 3Q26F when DRAM and NAND Flash supply-demand ratios are projected at 90.17% and 90.12%, respectively. We forecast DDR5 die contract prices to climb from US\$5.5 in 3Q25 to US\$17.2 by 4Q26F (see Figure 10). DDR4 is also likely to benefit indirectly as DDR5 price hikes and slower consumer upgrades to DDR5 support demand. For NAND Flash, we expect 1TB TLC wafer contract prices to rise from US\$6.0 in 3Q25 to US\$16.7 by 4Q26F (see Figure 11).

Stocks for Action

We expect memory stocks to benefit from continued price hikes in 2026F. Our top picks are Nanya Technology (2408 TT, NT\$166.5, OP), Winbond (2344 TT, NT\$66.2, OP), and Innodisk (5289 TT, NT\$542, OP).

Risk

Disappointing general server demand.

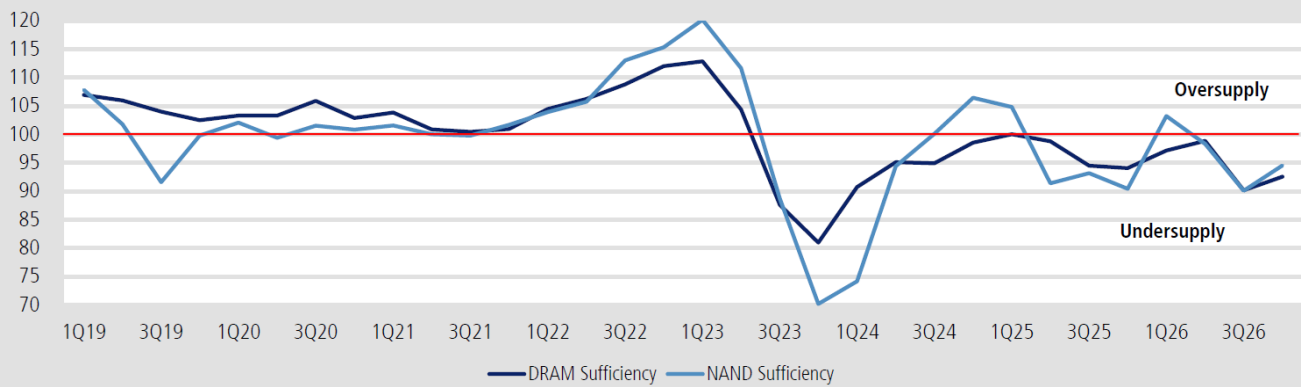
Figure 1: Peer comparison – Valuations

Ticker	Company	Revenue contribution of related products (%)	Market cap (NTSbn)	Price (NTS)	Rating	Target price (NTS)	EPS (NTS)			
							2023	2024	2025F	2026F
2408 TT	Nanya Technology	DRAM(100)	516	166.5	OP	180	(2.40)	-1.64	1.23	20.98
2344 TT	Winbond	DRAM(30), Flash(35), Logic IC(33)	298	66.2	OP	69	(0.29)	0.14	1.08	6.64
5289 TT	Innodisk	DRAM Module(52), NAND Module(41), AIoT(5)	51	542.0	OP	500	12.98	12.20	16.84	25.15

Source: TEJ; KGI Research

Figure 2: Memory industry supply-demand ratios

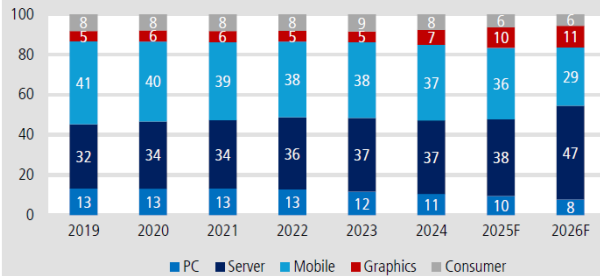
Supply-demand ratios for DRAM & NAND Flash, percent



Source: TrendForce; KGI estimates

Figure 3: DRAM bit demand share forecasts

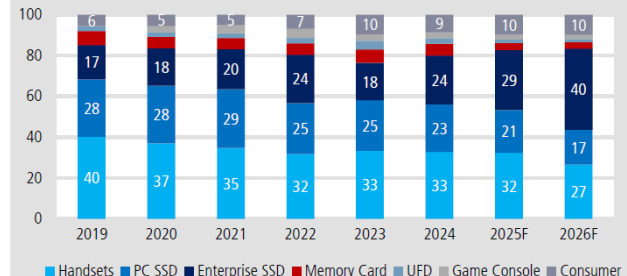
Bit demand breakdown, percent



Source: TrendForce; KGI estimates

Figure 4: NAND Flash bit demand share forecasts

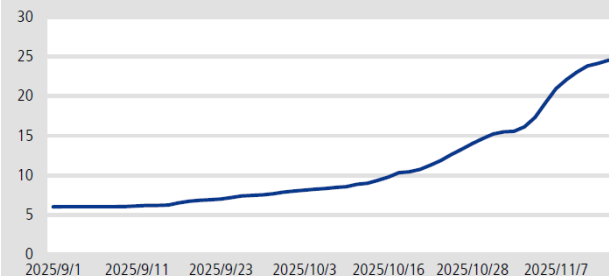
Bit demand breakdown, percent



Source: TrendForce; KGI estimates

Figure 5: DDR5 16Gb spot price trend

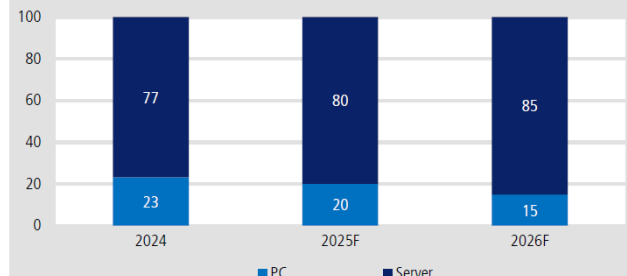
DDR5 16Gb spot price, US\$



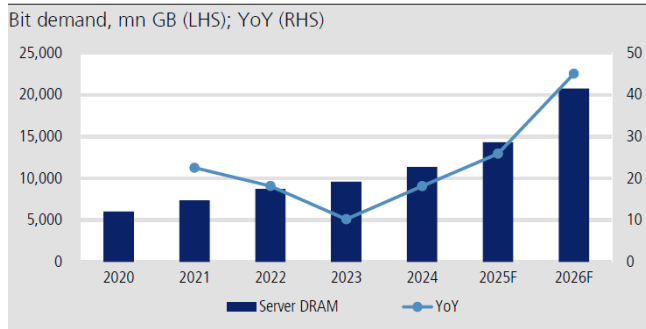
Source: TrendForce; KGI estimates

Figure 6: Forecasts of DDR5 bit demand (by application)

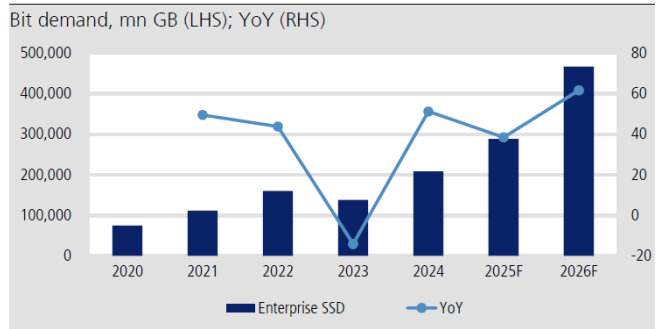
Bit demand breakdown, percent



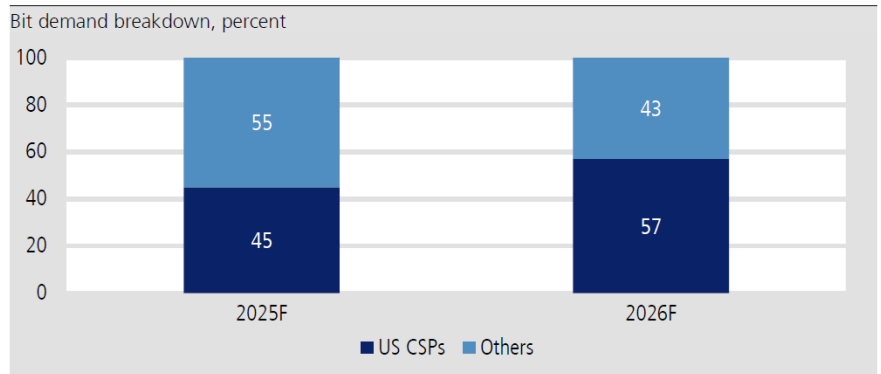
Source: KGI estimates

Figure 7: Sever DRAM bit demand forecasts


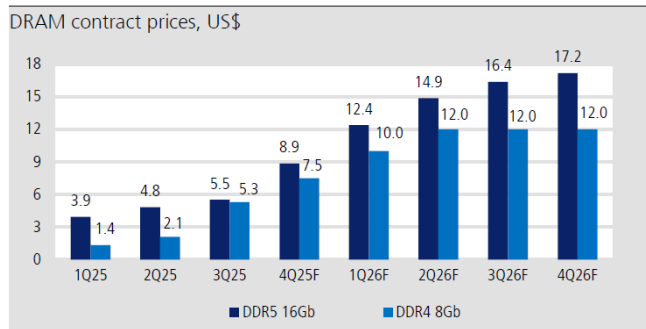
Source: TrendForce; KGI estimates

Figure 8: Enterprise SSD bit demand forecasts


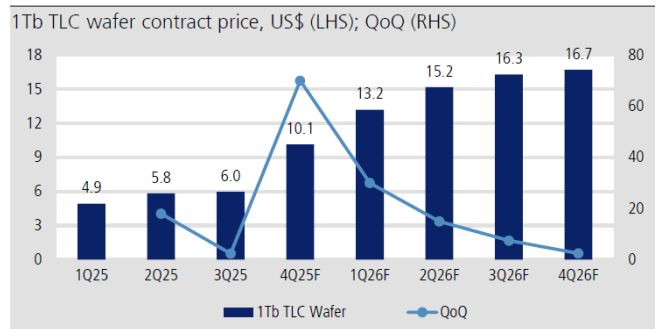
Source: TrendForce; KGI estimates

Figure 9: Server memory bit demand breakdown (by customer category)


Source: KGI estimates

Figure 10: Forecasts for DDR5 & DDR4 die contract prices


Source: KGI estimates

Figure 11: NAND Flash wafer contract price forecasts


Source: KGI estimates

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