

# RAM Prices: AI Demand, Supply Allocation & Cost Pass-Through



# AI-Led Demand Drives Structural Repricing Across Global Memory Markets

RAM prices stayed largely range-bound through most of 2025, before repricing sharply in H2 as AI demand tightened supply and manufacturers shifted capacity toward AI-focused memory, catching PC builders, laptop buyers, and cost-sensitive enterprises off guard and highlighting deeper structural changes across the semiconductor industry.

**~4x**

Increase from early-2025 levels

**AI-led demand**

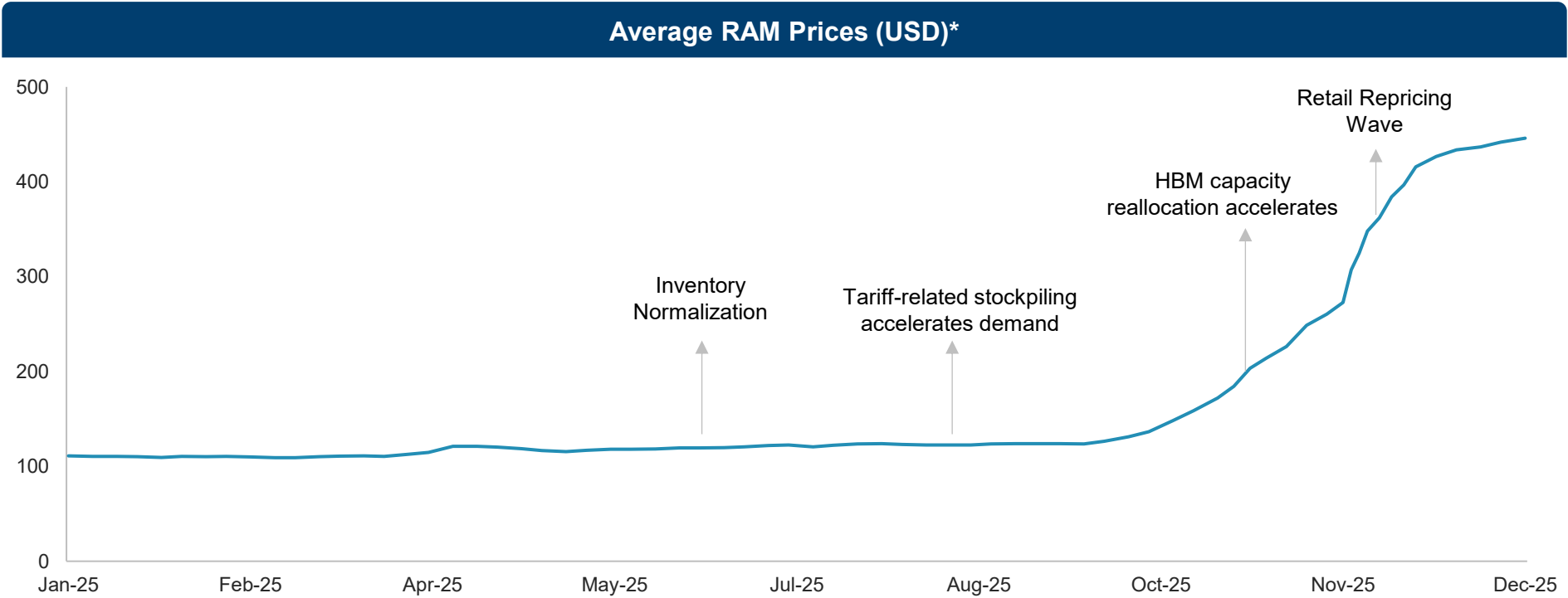
Primary driver of repricing

**Supply reallocation**

DRAM capacity prioritised for AI memory

**Market outlook**

Elevated pricing persists; oversupply risk post-2027



\*Indicative price of DDRG 6000MT 2x16GB  
Source: PCpartpicker

# Regional RAM Price Impact: Global Dispersion in Retail Repricing

The recent surge in RAM prices reflects a global supply-driven repricing cycle; however, the magnitude of price increases varies materially across regions due to differences in currency movements, taxation, channel inventory dynamics, and retailer pricing behavior. The table below compares retail prices for 32GB DDR5-6000 memory kits across key markets, highlighting the extent of price pass-through since September 2025.

Country	Retailer	Previous Price (Sep 2025)	Current Price (Dec 2025)	Price Increase
 <b>United States</b>	Newegg	\$149	\$392	163%
 <b>United Kingdom</b>	Overclockers UK	£119	£379	219%
 <b>Germany</b>	Mindfactory	€139	€379	173%
 <b>France</b>	LDLC	€139	€521	275%
 <b>South Korea</b>	Danawa	₩170,000	₩528,840	211%
 <b>Japan</b>	Kakaku	¥16,000	¥115,090	619%
 <b>Australia</b>	PC Case Gear	AUD 199	AUD 689	246%

**Note:** Prices are for 32GB DDR5-6000 memory kits and reflect market price increases observed in November-December 2025. Actual prices may vary by retailer and specific product models. Prices shown are based on market reports and retailer pricing data. Old prices are approximate, inferred from other reports, current are taken from the retailers' websites

**Source:** Retailer websites (Newegg, Overclockers UK, Mindfactory, LDLC, Danawa, Kakaku)

# RAM Inflation: Uneven Exposure Across the Hardware Stack

AI-led demand has reshaped how RAM cost pressures transmit across the hardware ecosystem, creating clear divergence between AI and consumer segments.

## 2–3× higher

Memory intensity in AI servers vs. traditional servers

## High-Cost sensitivity

Consumer devices most exposed

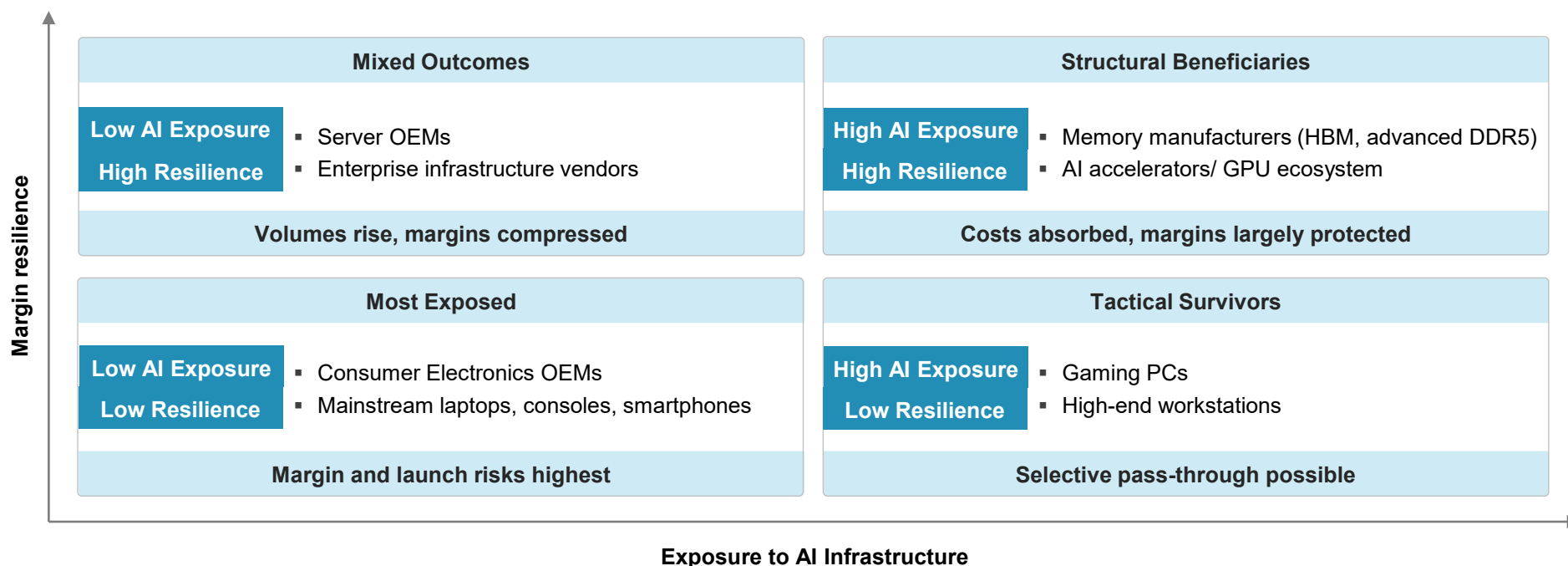
## Micron pivots to AI

Production skewed toward high-margin DRAM

## Launch delays

RAM shortages affect next-gen hardware

AI demand absorbs memory supply upstream, leaving consumer segments exposed downstream.



# Outlook

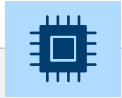
Elevated memory pricing is expected to persist through 2026–27, supported by disciplined supply additions and sustained AI-driven demand. Partial normalization may begin from late-2027 as new fabrication capacity reaches volume production; however, downside risk emerges in 2028–29 if AI investment growth moderates materially.

Time Horizon	Market Outlook	Pricing Impact	Key Implications
<b>Short-term (0 – 6 months)</b>	Supplier inventories have tightened to 2–4 weeks in 2025 (from 15–17 weeks in 2023–24) as AI customers secure ~35–40% of incremental DRAM capacity.	DRAM contract prices are rising sharply, with high double-digit QoQ increases (~55–60%) in late-2025 / early-2026.	OEMs prioritise supply security over price, while memory suppliers favour AI-linked, higher-margin customers.
<b>Medium-term (6–18 months)</b>	HBM3E is expected to account for ~60–65% of HBM shipments by 2026–27, while total DRAM output growth remains capped at ~15–17% YoY.	DRAM revenues are expected to grow >40–50% YoY in 2026, driven by mix shift toward higher-value AI memory rather than volume expansion.	PC shipments are projected to decline ~5–10% in 2026–27 and smartphones ~3–6%, alongside ~10–20% MSRP hikes in memory-intensive segments.
<b>Long-term (2027–29)</b>	Tight supply persists through 2027, with easing from late-2027 as new fabs ramp; AI memory revenue is projected to reach ~\$400–440bn by 2028 (from ~\$150–170bn in 2024–25).	Memory prices are unlikely to return to 2024 troughs, with a structural floor ~20–40% above pre-AI cycle averages.	Memory continue to account for >20% of device BOM. Procurement shifts toward multi-year strategic supply agreements rather than spot or quarterly purchases.

Source: BOA, WSTS, IDC, Tech Radar, Trendforce, Digiteam, Team Group, Techinsights

# Aranca Takeaway

## What Drives Near-Term RAM Pricing



**AI  
server demand**



**Memory  
supply allocation**



**Inventory  
discipline**



**Supplier  
pricing power**



**Downstream  
demand elasticity**

### Investor Implications

**01**

#### **Memory Suppliers**

Structural improvement in pricing power as AI demand absorbs incremental supply.

**02**

#### **AI Hardware Ecosystem**

Higher memory costs are largely absorbed given performance-driven spending priorities.

**03**

#### **Server OEMs**

AI-driven volumes offset margin pressure, but pricing power remains limited.

**04**

#### **Consumer Electronics**

Margin and product-cycle risks rise as RAM becomes a larger share of BOM.

**05**

#### **Memory Buyers**

Procurement increasingly prioritizes AI-linked use cases over consumer demand.





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