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The big short(age)

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The big short(age)

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A key fallout of increasing AI adoption has been rising prices and availability of RAM for consumer uses. As part of a strategic revamp, memory manufacturers have reallocated capacities away from DDR/LPDDR (PCs/mobiles key use cases) towards HBM (high-bandwidth memory), which consumes ~3x more silicon wafer capacity vs. DDR to produce the same capacity. In essence, every unit of HBM produced means three units worth of DDR capacity lost. In their defence, this decision is justifiable as HBM commands 5–6x the margin of regular DRAM. Resultantly, RAM costs now represent 30–40% of a smartphone's BoM, vs. ~20% previously, in turn, driving up prices, and impacting demand. To put it in perspective, across Q3/Q4FY26, India's smartphone shipments fell 7.5/12.5% YoY. That said, capex has picked up - Samsung announced capex of USD 73bn for CY26, 90% of it to the memory business. Micron, on the other end, has upped its annual capex from USD 7bn in 2023 to USD 25bn in 2026, while SK Hynix has announced cumulative capex of ~USD 50bn since Apr'24. However, we need to appreciate that gestation periods here are long, and earliest capacities expected to go live are Samsung (end-CY26) and Micron/SK Hynix by Feb'27.

- **Revisiting the memory crunch**: In a recent note, we highlighted the challenge that rising memory prices and potential unavailability could mean to mobile volumes. As manufacturing capacity is reallocated towards AI infrastructure, the global memory market is seeing an unforeseen pricing crisis, stemming from manufacturer decisions to prioritise high-bandwidth memory (HBM) for AI use cases over consumer-grade modules (DDR/LPDDR). Memory manufacturers, primarily Samsung, SK Hynix, Micron (combined market share >90%), are prioritising production of HBM for data centre operators and cloud providers to build AI infrastructure. In their defence, this makes business sense as HBM commands 5–6x the margin of mobile DRAM. Hence, supply of LPDDR5X (premium phones) and LPDDR4X (budget phones) has tightened significantly.

- **Mobile prices have been on an upsurge; recent data shows decline in smartphone shipments**: India's top smartphone brands including Vivo, Oppo, Samsung, Realme, Xiaomi, and Nothing, have raised prices substantially across their portfolios led by higher input costs. This was majorly due to rise in prices of memory chips, which surged >120% from Dec'25 to Feb'26; the cost of a memory chip is now 30–40% of a smartphone's BoM from ~20% previously. In Q3FY26 and Q4FY26, India's smartphone shipments have seen YoY declines of 7.5% and 12.5% respectively, on the back of rising memory prices. Additionally, conversations with retailers suggest that communication from brands indicates the likelihood of further price increases in coming quarters.

- **Key manufacturers increasingly reallocating capacities towards HBM**: Commentary from key manufacturers indicates that HBM consumes significantly more silicon wafer capacity (~3x) than DDR5 to produce the same amount of memory capacity. Essentially, every unit of HBM produced destroys three units' worth of commodity DDR capacity. In Dec'25, Micron announced it was discontinuing the "Crucial" brand, its consumer-facing memory division. Effective Feb'26, Micron executed what it called a "strategic channel realignment," essentially exiting the mass-market DRAM retail space. In Micron's defence, the rationale was purely economic; silicon wafer converted into HBM for AI servers was worth much more than the same wafer turned into DDR5 for consumers. SK Hynix entered 2026 holding ~62% HBM market share, and reallocated ~40% of its total wafer starts to HBM. Samsung, too, aggressively pivoted capacity previously dedicated to smartphone and PC memory, toward HBM4 and HBM3e.

- **Read through from commentary of major manufacturers:** To deepen our understanding, we read through the quarterly releases of Samsung, Micron and SK Hynix, and note: **(1) Samsung** has seen a sharp increase in HBM revenue, for e.g., +3x YoY in 4QCY25. For 2026, the company guided for total capex of USD 73bn, of which ~90% is likely to be allocated towards the memory division, with initial operations likely by end-CY26 at the earliest. **(2) Micron** forecasted HBM TAM to rise from USD 35bn in 2025 to USD 100bn by 2028; a CAGR of 42%. Further, its HBM revenue is up 3x from USD 1bn in Q2'25 to >USD 3bn in Q2'26, as it rides the AI wave. Capex investments too have been large, as it upped its annual capex from USD 7bn in 2023 to USD 25bn in 2026, indicating investments in augmenting capacities, to cater to rising AI needs. Timelines of these capacities going live indicate that earliest new capacities could go live is by Feb'27. **(3) SK Hynix** has also seen a surge in HBM revenue, its share rising from 28% in Q1CY24 to 44% of revenue in Q4CY25; consumer (including mobile) business is a key loser, its share dropping from 30% to 20% over the same period. Across geographies, the company has announced a cumulative ~USD 50bn capex since Apr'24, of which the earliest targeted opening is Feb'27 when its ~2mn sqft capacity in Yongin goes live with four fab units targeting HBM and next-gen DRAM capacities.

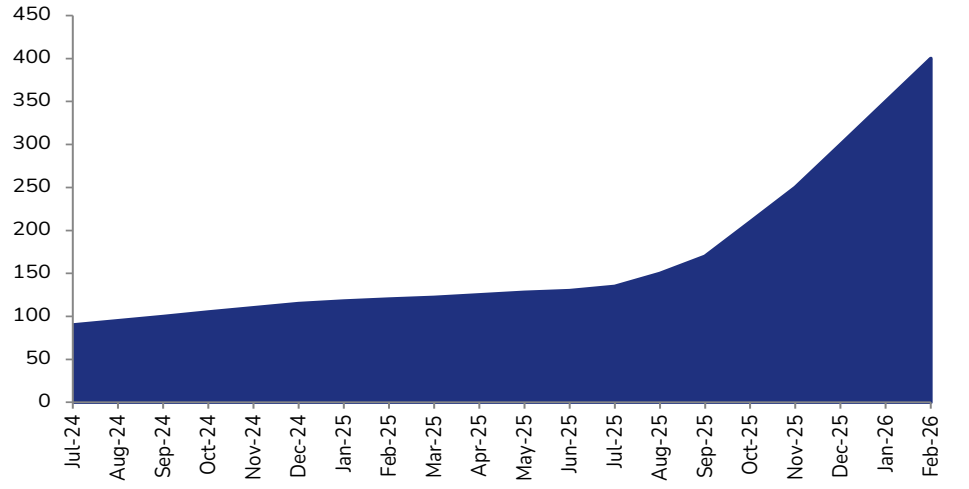
A recap on the memory issue

- The global memory chip market is experiencing an unprecedented pricing crisis driven by reallocation of manufacturing capacity toward artificial intelligence infrastructure.
- Unlike previous semiconductor shortages arising from pandemic-led disruptions, this crisis stems from deliberate manufacturer decisions to prioritise high-bandwidth memory (HBM) for AI accelerators over consumer-grade modules (DDR/LPDDR).
- The fundamental driver is not supply disruption but deliberate capacity reallocation. Memory manufacturers, primarily Samsung, SK Hynix, and Micron (with combined market share of >90%), are prioritising production of HBM and server-grade memory for data centre operators and cloud providers racing to build AI infrastructure.
- HBM commands 5x–6x the margin of mobile DRAM. Consequently, supply of LPDDR5X (used in premium phones) and LPDDR4X (used in budget phones) has tightened significantly. Distributor inventories have plummeted to 2–4 weeks (down from the typical 8–12 weeks), forcing original equipment manufacturers (OEMs) into a volatile spot market.

How have prices moved?

- There have been several stages of hikes in **mobile DRAMs (LPDDR4/4X; budget smartphones)**:
  - LPDDR4 prices began to rise from 2HCY24; initial signs of tightening supply on mature nodes drove **low-to-mid double-digit percentage increases**.
  - The uptrend accelerated in early 2025, with cumulative price gains expanding into the **several-tens-of-percent** as the broader DRAM market moved into shortage and suppliers increasingly prioritised higher-margin products.
  - By 2HCY25, LPDDR4 saw its sharpest relative increase of the cycle, with prices rising **several times** as compared to mid-2024 levels amid aggressive production phase-outs and panic buying in entry-level smartphone segments.
- Hikes in **mobile DRAMs (LPDDR5/5X; premium smartphones)** have also seen several stages:
  - Prices were hiked in LPDDR5 DRAMs, followed by a lag after being largely stable through most of 2024. Prices began to **rise meaningfully in late 2024**, supported by expanding adoption of LPDDR5X in high-performance computing platforms.
  - The pace of increases steepened in 1HCY25, reaching **high double-digit percentage** gains as supply tightened, before accelerating further in 2HCY25.
  - By late 2025, LPDDR5 prices had **climbed severalfold** from its 2HCY24 base, reflecting sustained demand from premium mobile and server applications alongside structurally constrained supply.

Exhibit 1: DDR5 average prices (indicative trend)



Source: Industry, JM Financial

Rising smartphone prices: The impact of RAM shortage

- India's top smartphone brands including Vivo, Oppo, Samsung, Realme, Xiaomi, and Nothing, have raised prices substantially across their portfolios led by higher input cost. This was majorly due to rise in prices of memory chips, which has surged over 120% from Dec'25 to Feb'26; the cost of memory chips now represents ~35% of a smartphone's bill of material, up from ~20% previously. This dramatic shift in BoM composition is a critical margin risk for EMS players assembling budget and mid-range devices.
- Additionally, conversations with retailers suggests that they have been informed by the brands that current price hikes are not only permanent, but there is scope for further price increases in the coming quarters.
- **Brand-wise price hike summary (press articles + discussions with channel participants)**
  - Vivo increased prices of its <INR 20,000 smartphones (T4 Lite and T4x) by INR 1,000–2,000 across SKUs. The T4 Lite 4GB/64GB variant, previously priced at INR 9,999, now retails at INR 11,999.
  - Samsung relaunched its Galaxy A56 as the A57, with minor changes in the design, but with ~INR 12,000–15,000 higher price tag, varying across SKUs. The base version, for instance, is priced at INR 56,999 vs. INR 41,999 for the A56.
  - Oppo raised prices on around five models, applying a flat INR 2,000 hike across a range spanning INR 10,999 (A6x) to INR 27,999 (A6 Pro).
  - Xiaomi increased prices of six smartphones by ~INR 3,000 through March.
  - Lastly, Realme implemented price hikes of INR 500–3,000 across models, including its <INR 10,000 C71 4G, positioned in a particularly price-sensitive segment.
- Interestingly, these five brands together account for ~two-thirds of smartphones sold in India annually, meaning that price hike-driven volume declines across them represent a concentrated and systemic risk to electronic manufacturers.

Exhibit 2: Indicative BoM of smartphones (before and after the surge in RAM prices)

Component	Mid-Range Smartphone (%)		Premium Smartphone (%)	
	Pre	Post	Pre	Post
Semiconductor Chip (processor + modem)	20–30%	15-25%	30–35%	25-28%
Display	18–25%	12-20%	15–25%	12-18%
Memory (RAM + storage)	**15–25%**	**30-40%**	**10–15%**	**20-25%**
Camera Modules	10–15%	8-12%	15–20%	12-16%
Battery & Charging	6–10%	4-8%	7–10%	7–10%
RF & Connectivity (5G, Wi-Fi, antennas)	5–8%	3-7%	6–10%	5-8%
Mechanical Parts (frame, glass, housing)	5–8%	3-7%	7–10%	5-9%

Source: Industry, JM Financial

The sharp surge in RAM prices have driven up its share in the BoM of a mid-range smartphone from 15–25% to 30–40%, driving smartphone prices

Key recent events on consumer RAM and HBM capacity

Micron exiting consumer business

- In Dec'25, Micron announced it was discontinuing the "Crucial" brand its consumer-facing memory division that had been the go-to for PC upgrades and builds for >30 years. Effective Feb'26, Micron executed what it called a "strategic channel realignment," essentially exiting the mass-market DRAM retail space. In addition to quitting the consumer market, Micron officially phased out DDR4 production entirely.
- The rationale was purely economic: Silicon wafer converted into HBM for AI servers was worth 5x–20x more than the same wafer turned into DDR5 for consumers. And this wasn't a failing division; it was deliberate capital reallocation. The 'Crucial' exit served as a signal to the industry marking hopefully a temporary end to the era of abundant, low-cost consumer memory.

In Dec'25, Micron announced it was discontinuing the "Crucial" brand, its consumer-facing memory division effective Feb'26

Samsung and SK Hynix – capacities fully booked

- In late 2025, executives from all three major memory manufacturers (Samsung, SK Hynix, Micron) confirmed their HBM capacity was sold out for all of 2026.
- SK Hynix entered 2026 holding ~62% HBM market share, largely from its exclusive supplier relationship with NVIDIA for H100 and Blackwell GPUs. It has converted ~40% of its total DRAM wafer starts to HBM.
- Samsung, which had been playing catch-up due to HBM3e yield issues during 2024–25, aggressively pivoted its Pyeongtaek P4 and P5 fabs toward HBM4 and HBM3e repurposing capacity previously dedicated to mobile LPDDR and PC memory. Samsung's entry into mass HBM production didn't alleviate the shortage; it worsened it, because the wafer penalty (3:1 rule) meant every unit of HBM produced destroyed three units' worth of commodity DDR5 capacity.
- To further elaborate, HBM consumes significantly more silicon wafer capacity than DDR5 to produce the same amount of memory capacity. It is estimated that HBM requires ~3x more wafers compared to DDR5 to produce an equivalent amount of memory

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Stargate – worsening the crunch

- Stargate (controlled by OpenAI, Oracle, and SoftBank), targets to build multiple huge AI data centres globally, through an investment of USD 500bn over 10 years. Of this, the first phase of USD 100bn is already being deployed, as construction is underway at a Stargate data centre campus in Abilene, Texas, with additional sites being negotiated in Indiana, Virginia, and Florida.
- The DRAM deal discussed herein is part of a coordinated supply chain strategy, wherein Samsung and SK Hynix have agreed to supply up to 900,000 DRAM wafers per month for Stargate, equalling ~40% of global DRAM output. This commitment is a capacity reservation that structurally constrains every other large-scale AI project.
- To put it into perspective, if Stargate alone reserves ~40% of DRAM wafer output, the balance ~60% must serve all other AI projects (Google DeepMind, Anthropic, xAI, Baidu, ByteDance), and over and above this, the entire non-AI world (every PC, phone, server, automotive system, and IoT device).
- These competing buyers are fighting over a constrained supply, which is why DRAM prices hit >100% YoY growth. OpenAI has locked in supply before competitors could, at a scale that makes it economically irrational for Samsung and SK Hynix to redirect capacity; Stargate's demand commitment gives them revenue predictability that no other buyer can match at that volume.

Samsung and SK Hynix have agreed to supply ~900,000 DRAM wafers per month for Stargate (~40% of global DRAM output). The balance ~60% must serve all other AI projects and the entire non-AI world (PCs, smartphones, server, automotive system, and IoT devices)

Recent commentary from key RAM manufacturers

Samsung Electronics

Exhibit 3: Samsung – Quarterly summary on key aspects

Metric	4QCY24	1QCY25	2QCY25	3QCY25	4QCY25
HBM trends	HBM sales +1.9x QoQ; 2025 plan to 2x over CY24	HBM sales decline QoQ given export controls + deferment to HBM3E	Low teens growth QoQ	HBM +mid-80% QoQ	HBM, +3x YoY; 2026 capacity fully booked DRAM ASP +40% QoQ
Memory capex trend	2025 division capex at ~USD 40bn	QoQ decline, while R&D spends maintained	Steady QoQ; foundry down QoQ; display slightly up	Overall memory capex flat YoY	2026 total capex planned at USD 73bn (~90% towards memory division), likely operational by end-CY26
HBM product status	HBM3E in mass production; enhanced mass production by 1QCY25, full ramp up by 2QCY25. HBM4 mass production by 2HCY25	Enhanced HBM3E testing. HBM4 mass production by 2HCY25, revenue by CY26.	HBM4 development complete; samples shipped to customers Custom HBM4 under discussion with clients	HBM4 ready for mass production HBM4E sampling mid-CY26	HBM4 in full-scale production HBM4E sampling by mid-CY26

Source: Company, Bloomberg, Industry, JM Financial.
Note: (1) DS stands for Device Solutions, wherein Samsung classifies its memory business. Beyond this, data on capex on memory is NA. (2) Samsung follows year-ending in December. (3) HBM4 is a faster, more spacious, and more efficient version of HBM3 designed for demands of next-generation AI, allowing twice the amount of data to move in and out at once.

Exhibit 4: Samsung – capex on DS division and surge in R&D spend (USD bn)

Year	Total Capex	DS Division Capex	R&D Spend
2020	29.6	25.3	14.8
2021	37.1	33.5	15.8
2022	40.8	36.8	19.2
2023	40.8	37.2	21.8
2024	41.2	35.6	26.9
2025	40.5	36.5	29.0

Source: Company, Industry, JM Financial
Note: DS stands for Device Solutions, wherein Samsung classifies its memory business. Beyond this, data on capex on memory is NA. .
(2) Samsung follows year-ending in December

Exhibit 5: Samsung – Quarterly performance of memory segment (within DS division) (in USD mn)

Samsung memory segment	Q1CY24	Q2CY24	Q3CY24	Q4CY24	Q1CY25	Q2CY25	Q3CY25	Q4CY25
Revenue	13,147	15,854	16,430	16,442	13,150	15,157	19,254	25,609
YoY Growth (%)	88.0%	132.6%	104.9%	38.1%	0.0%	-4.4%	17.2%	55.7%
Operating Income	1,514	3,843	4,483	3,875	2,148	3,133	4,327	10,882
Operating margin (%)	**11.5%**	**24.2%**	**27.3%**	**23.6%**	**16.3%**	**20.7%**	**22.5%**	**42.5%**

Source: Bloomberg, JM Financial
Note: (1) DS stands for Device Solutions, wherein Samsung classifies its memory business. (2) Samsung follows year-ending in December

Micron Technology – Increasing capex and TAM guidance

Exhibit 6: Micron – Quarterly summary on key aspects

Metric	Q2'2025	Q3'2025	Q4'2025	Q1'2026	Q2'2026
HBM TAM	USD35bn for 2025 (USD30bn prior quarter and USD18bn in 2024)	>USD35bn 2025	>USD35bn 2025	USD49bn 2026/ USD100bn by 2028	USD49/69bn for 26/27E and USD100bn by 2028
HBM Revenue	>USD1bn/ +50%QoQ	>USD1.5bn+/ ~50% QoQ growth	>USD2bn (23-24% DRAM supply share × ~USD35B TAM)	NA	>USD3bn (USD49bn CY26 TAM × 24% share)
Capex trend	USD14bn in 2025, directed towards HBM capacity + Idaho fab + Singapore HBM packaging	~USD14bn 2025	Ended 2025 at ~USD13-14bn, guidance of ~USD18bn for 2026	>USD20bn in 2026 (from USD18bn)	>USD25bn in 2026 (raised again from USD20bn)
Capacity Timelines	Singapore HBM packaging facility: groundbreaking done, production by 2027. Idaho: first wafer output H2-2027. No new supply before fiscal 2027.	Singapore HBM packaging facility: on track. Idaho 1: key construction milestone hit. NY fab: environmental review underway. No new supply before mid-2027.	Singapore HBM packaging: On track. Idaho 1: equipping + tech transitions in Japan + Taiwan existing cleanrooms. All greenfield capacity beyond CY2027.	Singapore HBM packaging facility: production on track by 2027. Idaho 1: now expected by mid-2027 (vs. H2-2027) Idaho 2: construction starts 2026, operational end-28. NY fab: ground break early-2026 / supply from 2030. India A&T: pilot production begun.	Singapore HBM packaging facility: production on track by 2027. Idaho 1: mid-CY2027 confirmed. Idaho 2: ground prep begun. NY fab: ground broken. India A&T: commercial shipments begun. No new meaningful supply before H2'27.

Source: Company, Industry, Bloomberg, JM Financial
Note: Micron follows year-ending in August

Exhibit 7: Micron – Memory (DRAM + NAND) segment (in USD mn)

Micron memory segment	Q3'2024	Q4'2024	Q1'2025	Q2'2025	Q3'2025	Q4'2025	Q1'2026	Q2'2026
Revenue	6,757	7,691	8,641	7,978	9,226	11,236	13,555	23,765
YoY Growth (%)	83.4%	94.2%	85.5%	39.4%	36.5%	46.1%	56.9%	197.9%
Gross Profit	1,824	2,630	3,462	3,005	3,233	4,762	6,703	13,371
Gross margin (%)	**27.0%**	**34.2%**	**40.1%**	**37.7%**	**35.0%**	**42.4%**	**49.4%**	**56.3%**

Source: Bloomberg, JM Financial.
Note: Micron follows year-ending in August

Exhibit 8: Micron – total capex and surge in R&D spend (USD bn)

Year	Total Capex	R&D Spend
2021	9.7	2.7
2022	12.0	3.3
2023	7.0	3.6
2024	8.1	4.3
2025	13.8	3.8
2026E	25.0	NA

Source: Company, Industry, JM Financial

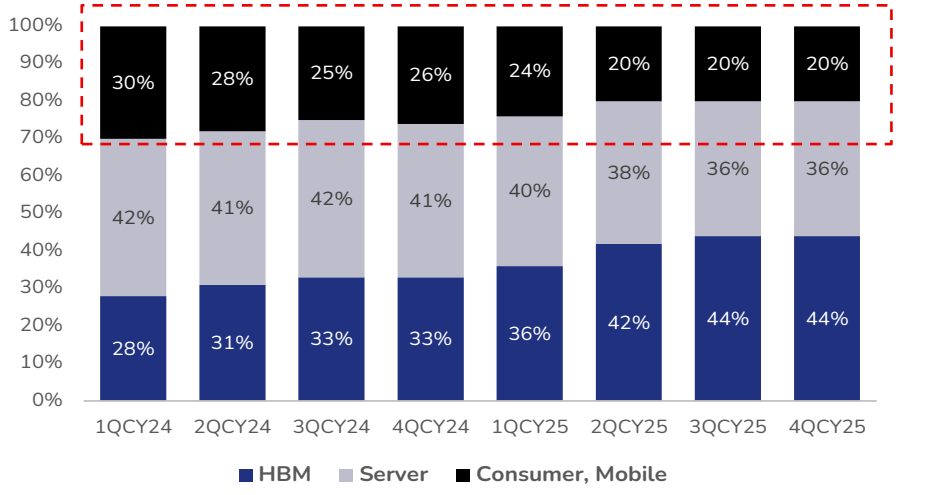
SK Hynix – HBM growing at the cost of consumer use cases

Exhibit 9: SK Hynix – Upcoming projects in memory segment

Location	Total Investment	Announced	Target Opening	Primary Output
Cheongju, South Korea	USD 13.6bn	Apr'24	Oct'25 (cleanroom 1) Ahead of schedule	HBM3E, HBM4 DRAM (1b-nm process)
West Lafayette, Indiana, USA	USD 3.87bn	Apr'24	H2'28 (mass production)	HBM advanced packaging & R&D; next-gen HBM for AI GPUs
Yongin, Gyeonggi Province, South Korea	USD 21.5bn (6.3bn Jul'24 + 15.2bn Feb'26)	Jul'24 (initial) Feb'26 (expanded)	Feb'27 (cleanroom 1, pulled forward from May 2027)	Next-gen DRAM & HBM; 4 fabs planned;
Cheongju Technopolis Industrial Complex, South Korea	USD 12.9bn	Jan'26	End-27 (construction) Full ops: 2028	HBM advanced packaging & test; back-end for M15X wafers

Source: Company, Bloomberg, Industry
Note: SK Hynix follows year-ending in December

Exhibit 10: SK Hynix – DRAM revenue split by application



Source: Industry, JM Financial
Note: SK Hynix follows year-ending in December

Exhibit 11: SK Hynix – memory segment (in USD mn)

SK Hynix	Q1CY24	Q2CY24	Q3CY24	Q4CY24	Q1CY25	Q2CY25	Q3CY25	Q4CY25
Revenue	8,946	11,584	12,563	13,723	11,888	15,623	17,359	22,367
YoY Growth (%)	147.7%	129.1%	93.8%	70.1%	32.9%	34.9%	38.2%	63.0%

Source: Bloomberg, JM Financial
Note: SK Hynix follows year-ending in December

Exhibit 12: SK Hynix – total capex trend (USD bn)

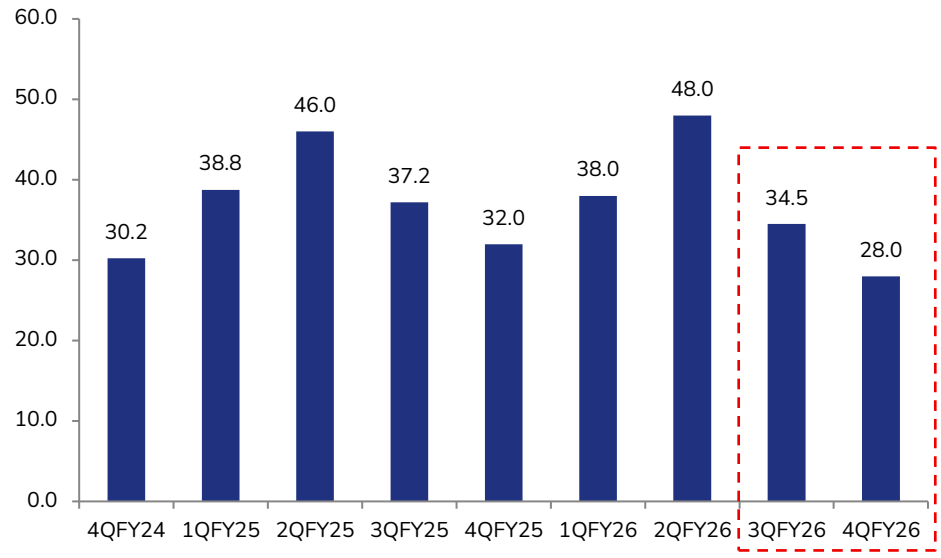
Year	Total Capex
2020	8.5
2021	10.9
2022	14.8
2023	6.4
2024	11.7
2025	19.4

Source: Company, Bloomberg, JM Financial

Smartphone shipments on the decline

- India's smartphone shipment over the last 5 years has been range-bound, hovering ~150mn. This, we believe, is owing to mobiles being a well-penetrated category, and most of the buying coming from replacement buyers. Additionally, CY25 mobile shipments were flat YoY.
- In Q2FY26, there was a surge in smartphone shipments, driven by festivity-led launches. Since then, demand has seen a downtrend, with YoY declines of 7.5% and 12.5% in Q3FY26 and Q4FY26 respectively.
- Premiumisation is a noticeable trend across the years with consumer preferences shifting towards better quality and feature-rich smartphones. Brands like Vivo and Oppo, who increased focus on premium smartphones, and Apple in the super premium segment have consistently increased their volumes, while brands that stuck with mass-heavy categories are seeing volume contraction and losing market share.

Exhibit 13: India's smartphone shipments (quarterly, mn units)



Source: Industry, JM Financial. Note: for 4QFY26, only headline numbers available, brand-wise data awaited

In Q3FY26 and Q4FY26, India's smartphone shipments have seen YoY declines of 7.5% and 12.5% respectively on the back of rising memory prices

Exhibit 14: Historical mobile volume across brands (Indian smartphone market, Q3FY25 versus Q4FY26, mn units)

Period (FY)	2QFY25	3QFY25	4QFY25	1QFY26	2QFY26	3QFY26
Only premium range						
Apple	4.0	3.6	3.0	2.9	5.0	3.6
Mix of premium and budget						
Vivo	7.3	6.5	6.3	7.2	8.8	7.0
Oppo	6.4	4.2	3.8	5.1	6.7	4.6
Samsung	5.7	4.6	5.2	5.5	6.0	4.6
OnePlus	1.7	1.0	0.8	1.0	1.2	0.8
Motorola	2.6	2.6	2.4	3.0	4.0	2.7
Budget-heavy brands						
Realme	5.3	3.5	3.4	3.7	4.7	3.3
Xiaomi	5.2	3.8	2.5	3.6	4.4	2.7
POCCO	2.7	1.8	1.4	1.4	2.1	1.2
iQoo	1.9	1.2	0.7	1.6	1.6	1.5
Others	3.3	3.3	2.4	2.9	3.6	1.6
TOTAL	**46.0**	**36.0**	**32.0**	**38.0**	**48.0**	**34.5**

Source: Industry, Company, JM Financial. Note: for 4QFY26, only headline numbers available, brand-wise data awaited

Exhibit 15: Historical volume growth (Indian smartphone market, Q3FY25 versus Q4FY26, YoY %)

Period (FY)	2QFY25	3QFY25	4QFY25	1QFY26	2QFY26	3QFY26
Only premium range						
Apple	59.9%	-27.4%	37.7%	9.7%	26.1%	-1.7%
Mix of premium and budget						
Vivo	20.5%	23.3%	28.7%	12.9%	20.8%	8.1%
Oppo	48.8%	140.9%	24.5%	14.2%	4.3%	10.3%
Samsung	-19.5%	-27.1%	11.2%	10.2%	6.8%	1.6%
OnePlus	-38.5%	-73.9%	-50.2%	-44.3%	-30.5%	-21.0%
Motorola	151.8%	NA	72.5%	26.5%	51.9%	3.5%
Budget-heavy brands						
Realme	-19.3%	-23.1%	14.5%	-24.5%	-11.1%	-5.9%
Xiaomi	3.3%	-13.8%	-35.5%	-30.3%	-15.8%	-17.2%
POCCO	7.9%	-39.7%	-22.9%	-34.6%	-22.7%	-33.2%
iQoo	102.4%	NA	-13.1%	56.1%	-18.1%	31.2%
Others	-30.6%	3.7%	-18.2%	3.4%	8.6%	-52.7%
TOTAL	6.0%	-2.9%	5.8%	-2.0%	4.3%	-7.3%

Source: Industry, Company, JM Financial. Note: for 4QFY26, only headline numbers available, brand-wise data awaited

Exhibit 16: Historical market share brands (Indian smartphone market, Q3FY25 versus Q3FY26, %)

Period (FY)	2QFY25	3QFY25	4QFY25	1QFY26	2QFY26	3QFY26
Only premium range						
Apple	8.6%	10.1%	9.5%	7.5%	10.4%	10.3%
Mix of premium and budget						
Vivo	15.8%	18.1%	19.7%	19.0%	18.3%	20.4%
Oppo	13.9%	11.6%	12.0%	13.4%	13.9%	13.4%
Samsung	12.3%	12.7%	16.4%	14.5%	12.6%	13.4%
OnePlus	3.6%	2.7%	2.4%	2.5%	2.4%	2.3%
Motorola	5.7%	7.3%	7.5%	8.0%	8.3%	7.9%
Budget-heavy brands						
Realme	11.5%	9.6%	10.6%	9.7%	9.8%	9.5%
Xiaomi	11.4%	10.5%	7.8%	9.6%	9.2%	9.0%
POCCO	5.8%	5.0%	4.3%	3.8%	4.3%	3.5%
iQoo	4.2%	3.2%	2.3%	4.3%	3.3%	4.4%
Others	7.2%	9.2%	7.5%	7.7%	7.5%	6.0%
TOTAL	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Source: Industry, Company, JM Financial/. Note: for 4QFY26, only headline numbers available, brand-wise data awaited

The basics of memory in a smartphone

- Memory in a smartphone consists of DRAM (Dynamic Random-Access Memory), also called RAM, and NAND Flash, which is essentially the storage memory.
- The DRAM acts as a temporary workspace for the processor, which stores applications and data currently in use, so the phone can multitask and respond quickly to comments, while the storage memory is permanent storage for photos, applications, videos, files, etc.
- Higher RAM capacity ensures smoother performance, while higher storage enables higher capacity to store files and media. To put this into perspective, when smartphone brands sell a 128GB/6GB smartphone or a 256GB/8GB smartphone, the 128GB and 256GB refer to the storage memory, while the 6GB and 8GB refer to the DRAM.

Exhibit 17: Indicative standard BoM of a budget and flagship smartphone

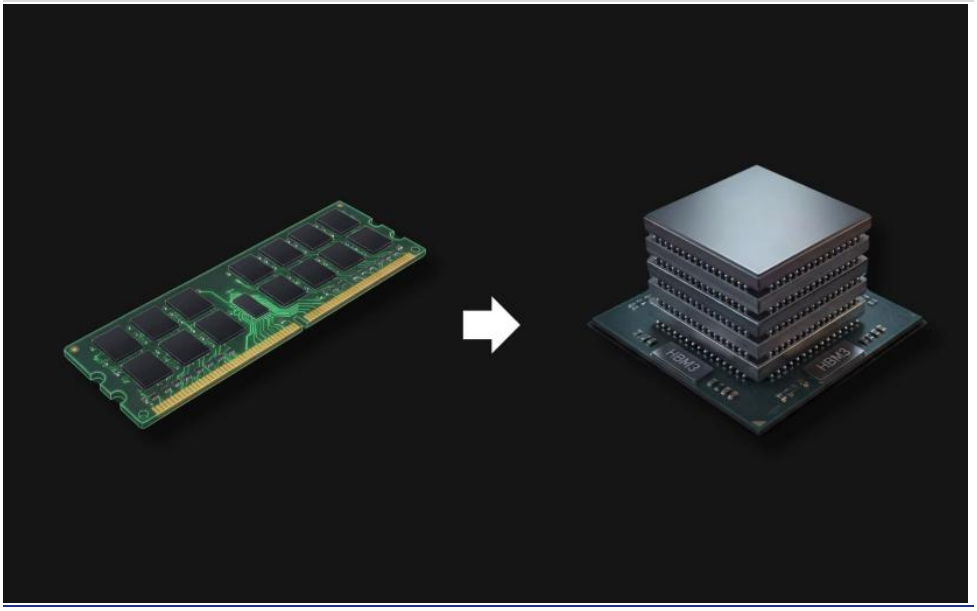
Component	Mid-Range Smartphone (%)	Premium Smartphone (%)	Key Difference
Semiconductor Chip (processor + modem)	20–30%	30–35%	Flagships use cutting-edge silicon
Display	18–25%	15–25%	Premium uses LTPO, higher brightness, better calibration
Memory (RAM + storage)	**15–25%**	**10–15%**	**Higher *percentage* in mid-range due to lower total BOM**
Camera Modules	10–15%	15–20%	Premium adds larger sensors, telephoto/periscope
Battery & Charging	6–10%	7–10%	Similar share, premium has faster charging ICs
RF & Connectivity (5G, Wi-Fi, antennas)	5–8%	6–10%	Premium supports more bands & advanced RF
Mechanical Parts (frame, glass, housing)	5–8%	7–10%	Premium materials (metal, ceramic, glass)

Source: Industry, JM Financial

Difference between AI memory (HBM) and DDR

- High Bandwidth Memory (HBM) is a specialised form of DRAM that differs materially from traditional DRAM in both architecture and end-market positioning. While conventional DRAM is used across PCs, mobile devices, and servers, HBM utilises a 3D-stacked design with through-silicon vias (TSVs) and advanced packaging to sit in close proximity to AI accelerators and GPUs.
- This structural difference enables HBM to deliver an order-of-magnitude higher memory bandwidth and significantly better power efficiency, which is critical for data-intensive AI and high-performance computing workloads.
- As a result, HBM has become a key bottleneck resource in AI systems, where performance is increasingly constrained by memory bandwidth rather than compute.
- From an industry perspective, HBM carries materially higher average selling prices and margins compared to commodity DRAM and is typically sold under long-term agreements with leading hyperscalers and GPU vendors.
- Importantly, the production of HBM consumes leading-edge DRAM wafer capacity, effectively tightening supply for conventional DRAM and supporting broader pricing dynamics. This creates a dual benefit for memory vendors, combining direct margin accretion from HBM with indirect pricing support for the rest of the DRAM portfolio.

Exhibit 18: DRAM (LHS) versus HBM (RHS) physical structure



Source: Industry, JM Financial

HBM and DRAM yield differences

- HBM yield is structurally lower and more complex than traditional DRAM due to its multi-step manufacturing process. While DRAM yield is determined at the single-die level and improves to high levels as nodes mature, HBM requires stacking 8–16 high-quality DRAM dies, meaning the final yield is a compounded outcome where failure of any individual die can impact the entire stack. In addition,
- HBM introduces further yield losses at the packaging stage, including TSV stacking, base die integration, and advanced interposer assembly. As a result, HBM yield ramps are slower and less predictable compared to DRAM, particularly in early production phases. This complexity also increases wafer intensity, with HBM consuming significantly more DRAM capacity per bit produced, effectively tightening overall industry supply.

APPENDIX I

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