

— EQUITY THESIS / MEMORY SEMICONDUCTORS

Memory is not a ~~tech~~ ~~stock~~. It's a *commodity*.

Samsung, SK Hynix, and Micron are first cousins to ExxonMobil, Freeport-McMoRan, and Nucor — not Nvidia. Their earnings are governed by spot prices on a homogeneous, storable, globally-priced good. The market keeps valuing them as tech. That dislocation is the opportunity — and the warning.

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FRAMEWORK

POSITIONING CYCLICAL · MID-CYCLE

STYLE COMMODITY PRODUCER

THESIS

DRAM and NAND producers should be valued as *commodity processors*, not technology franchises. The product is fungible, priced on spot and contract markets, warehoused by hyperscalers, and subject to classic hog-cycle capacity dynamics. This implies **higher realized and implied volatility, compressed terminal multiples, and trading regimes that rhyme with oil, copper, and steel** — not software.

\$ 01 The setup — hottest stocks, cheapest multiples

Since the end of August 2025, Samsung shares have tripled and SK Hynix has quadrupled. Micron is up more than 300% over the trailing twelve months. And yet the group trades at single-digit to low-teens forward earnings multiples — a fraction of where logic peers like Nvidia, Broadcom, or TSMC trade. That combination — violent upside in price against deeply discounted multiples — is the signature of a commodity producer mid-cycle, not a secular growth franchise.

DRAM CONTRACT	NAND CONTRACT	SK HYNIX FWD P/E	MICRON FWD P/E
+95%	+75%	~4x	~12x
QoQ in Q1 2026. Q2 guided +58–63% further. Once-in-thirty-year move.	Q2 2026 QoQ forecast. NAND now outpacing DRAM for the first time this cycle.	Market prices the stock at 4x forward earnings. Nvidia trades at 30x+.	On consensus \$33 EPS for FY26. Half the S&P 500 multiple.

A stock that has quadrupled and still trades at 4x earnings is telling you something specific. The market is not pricing the current run-rate — it is pricing the *through-cycle* average. That is how equity investors value copper miners, refiners, and nitrogen producers. It is *not* how they value Adobe.

\$ 02 Why memory is a commodity

The test for a commodity is not glamour or complexity — 3nm fabs are among the most sophisticated objects humans build. The test is whether the output is fungible, priced on an open market, and whether producers are price-takers. On every axis, DRAM and NAND qualify.

MEMORY PRODUCERS BEHAVE LIKE THIS

- **Fungible output.** A DDR5 bit from Samsung is indistinguishable from one from Hynix. Buyers spec JEDEC standards, not brands.
- **Spot and contract markets.** TrendForce, DRAmEXchange, Counterpoint publish daily and monthly price indices.
- **Inventory is storable.** Chips sit in warehouses. Hyperscalers stockpile. OEMs destock. Classic inventory whip.
- **Price-taker economics.** Gross margins swing from +60% to -31% in three quarters — producers without pricing power over the cycle.
- **Capex-led supply response.** Capacity is lumpy, 2-3 year lead times, irreversible. Fabs run through losses.
- **Cost curve matters.** Node leadership = low-cost producer advantage. Samsung's scale is analogous to Saudi Aramco's Ghawar.

REAL TECH FRANCHISES BEHAVE LIKE THIS

- **Differentiated, proprietary output.** CUDA isn't fungible with ROCm. An Adobe subscription isn't a Figma one.
- **List pricing set by producer.** Nvidia sets B200 price; customers accept or wait. Software vendors publish SKUs.
- **No spot market.** Nobody hedges forward. Salesforce seats on a futures curve.
- **Stable, high gross margins.** Nvidia ~75% gross margin through the cycle. Microsoft ~70%. Consistency reflects moat.
- **Capital-light scale.** Software requires code, not \$25B fabs. Marginal unit cost approaches zero.
- **Winner-take-most dynamics.** Network effects, switching costs, IP — not relative unit economics.

§ 03

The cycle is not *dead*

Every memory cycle since the 1990s has produced the same narrative at the top: "this time is different." Smartphones in 2014. Cloud in 2018. Remote work in 2021. Each time, a legitimate secular demand driver convinced investors that cyclicalities had been tamed. Each time, capacity caught up, inventory built, and the industry posted catastrophic losses within 6-8 quarters of the peak.

PERIOD	PHASE	NARRATIVE AT PEAK	MICRON GROSS MARGIN
2014–2015	<i>Boom</i>	Smartphone supercycle; "mobile demand structural"	~35% → losses by 2016
2017–2018	<i>Boom</i>	Cloud capex; "hyperscaler demand permanent"	Peaked >60%
2019	<i>Bust</i>	Inventory correction; China trade war	Collapsed to ~30%
2020–2021	<i>Boom</i>	Pandemic IT build; "remote work structural"	Recovered to ~45%
2022–2023	<i>Bust</i>	PC/smartphone destock; "excess inventory"	-31.4% trough; \$8B TTM loss
2024–2026	<i>Boom</i>	AI HBM supercycle; "this time is different"	Recovered >56% on HBM mix

The 2022–2023 bust is the relevant memory. Not 2017, not 2020 — 2022. A company that just printed a record quarter was, 18 months earlier, reporting gross margins of *negative thirty-one percent*. That is not a rounding error. That is a producer operating deep below cash cost because the alternative — idling a \$20B fab — is worse.



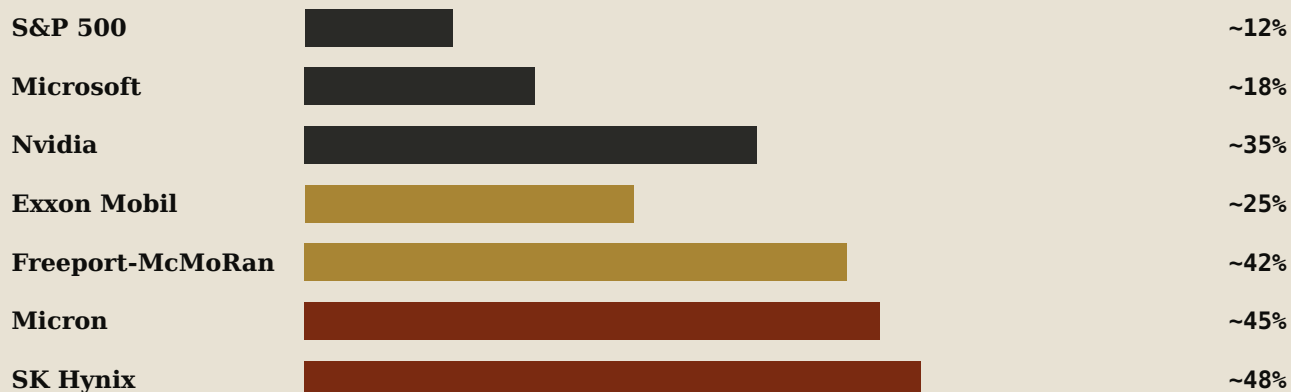
*We are, in a way, in a new paradigm for memory.
However, this idea that you will never ever see cyclicity
in memory — we are not buying that.*

JORRY NOEDDEKAER — POLAR CAPITAL

§ 04 **Volatility is the tell** — *trades like crude, not Cisco*

The most direct empirical argument for the commodity framework is the return profile itself. Memory equities exhibit realized and implied volatility patterns that cluster with integrated oil, base metals, and agricultural processors — not with software or semiconductor capital equipment.

INDICATIVE 30-DAY REALIZED VOLATILITY RANGE (%) – ILLUSTRATIVE PEER CLUSTERING



Memory stocks trade with the volatility signature of levered commodity producers. Options markets already recognize this — implied vols on MU consistently price closer to copper and oil equities than to diversified semis. The market intuitively knows what it is. Equity valuation frameworks have not fully caught up.

§ 05 How to trade a commodity *masquerading as a tech stock*

If the framework is correct, the investment process should import from commodity equity playbooks — not DCF-driven growth investing. That means treating P/E as a counter-signal, cycle positioning as the dominant factor, and supply-side discipline as the true moat.

OPERATING RULES

Commodity-style rules for memory equity exposure

BUY SIGNALS

1. **Negative gross margins** across the industry — producers operating below cash cost signals the trough.
2. **Capex cuts announced** by Samsung and Hynix — supply discipline precedes price recovery.
3. **Inventory weeks-on-hand** contracting at OEMs — end-demand is outrunning restocking.
4. **High P/E on depressed earnings** — the counterintuitive commodity buy signal.

SELL SIGNALS

1. **Capex acceleration** + new fab announcements — the seeds of the next glut are planted at the top.
2. **Gross margins >55%** industry-wide — mean-reverts within 6–8 quarters.
3. **"This time is different"** sell-side consensus — the narrative always peaks before the cycle does.
4. **Hyperscaler inventory build** — customer stockpiling is a late-cycle tell, not early.

The crucial insight: *a 4x forward P/E on SK Hynix is not cheap. It is the market efficiently discounting that these earnings will not repeat.* Commodity producers at the top of a cycle always look cheap on trailing and near-forward multiples. They always look expensive at the bottom when earnings collapse. The trade is to do the opposite of what the multiple suggests.

§ 06 **What would *actually* de-commoditize memory**

The bull case deserves a fair hearing. There is a genuinely credible argument that HBM specifically — not DRAM writ large — is de-commoditizing. HBM4 requires customer-specific co-design with the logic die, multi-year qualification cycles with Nvidia and AMD, and packaging integration that creates switching costs absent in commodity DDR5. If HBM becomes a customized, co-designed component with locked-in hyperscaler contracts, that slice of the business starts to resemble a differentiated franchise.

But HBM is ~20-30% of industry revenue. The other 70%+ — standard DDR5, LPDDR, NAND flash — remains fungible, spot-priced, and governed by the same cycle physics that have operated for four decades. Investors should decompose the group: assign a higher multiple to the HBM franchise, a commodity multiple to the rest. Blending them into a single "AI stock" multiple is the category error this briefing is written to correct.

§ 07 **Conclusion**

Samsung, SK Hynix, and Micron are levered, oligopolistic, capital-intensive producers of a fungible, globally-priced, storable good. That is the textbook definition of a commodity producer. The AI supercycle is real — but so was the smartphone cycle, the cloud cycle, and the pandemic IT cycle. Each delivered record earnings. Each was followed by a down-cycle that wiped out multiple years of profit.

The investment framework follows: size positions with commodity-producer volatility in mind, treat low multiples at peak earnings as warnings rather than bargains, monitor capex discipline as the leading indicator of the next bust, and carve out HBM separately as a potentially differentiated sub-franchise. The stocks can continue to work — commodity cycles often run longer than skeptics expect. But they should be *traded*, not *held*. That is the fundamental implication of the thesis: memory is not something you own for a decade. It is something you rent across a cycle.