

# MEMORY'S MARGINS: Separating Structural Improvement from Cyclical Peak

## MEMORY AT THE EXTREMES

The MSCI Emerging Markets Index is up over 22% year-to-date<sup>1</sup> on the back of a historic rally in semiconductor stocks. Remarkably, the index's top eight contributors are all semiconductor-related businesses, together accounting for more than three-quarters of its gains this year<sup>2</sup>. This is not surprising: two-thirds of the index's expected 2026 earnings per share growth is attributable to the chip sector<sup>3</sup>. Within semis, memory suppliers Samsung and SK Hynix are key beneficiaries, with their margin expansion driving a significant share of the sector's earnings uplift. Understanding the mechanics of that expansion, and its historical durability, is critical to assessing the earnings landscape.

## THE MARGIN MATH

Memory profitability is overwhelmingly a story of pricing. Costs per gigabit are relatively fixed in the short run, as fabrication plants take years to build and ramp. When dynamic random-access memory (DRAM) prices rise, nearly every incremental dollar flows to gross profit. The illustrative profit and loss (P&L) in the table below shows how tripling DRAM prices translates into a sixfold increase in gross profit and a doubling of the gross margin.

	Normal	Boom	% Change
<b>DRAM Price</b>	100	300	200%
<b>Gross Profit</b>	40	240	500%
<b>Gross Margin</b>	40%	80%	100%

High-bandwidth memory (HBM) for AI servers drove DRAM demand, but it is accounting for only approximately 12% of DRAM bit demand in 2026. While HBM demand is likely price-inelastic, conventional memory demand is dominated by end markets with meaningful price elasticity: handsets (21%), conventional servers (30%), and PCs/other (36%)<sup>4</sup>. The key question for investors is how durable current commodity DRAM pricing is.

1. USD, TR as of 5/8/2026

2. FactSet, Pzena analysis

3. FactSet, Pzena analysis. Data as of May 6, 2026.

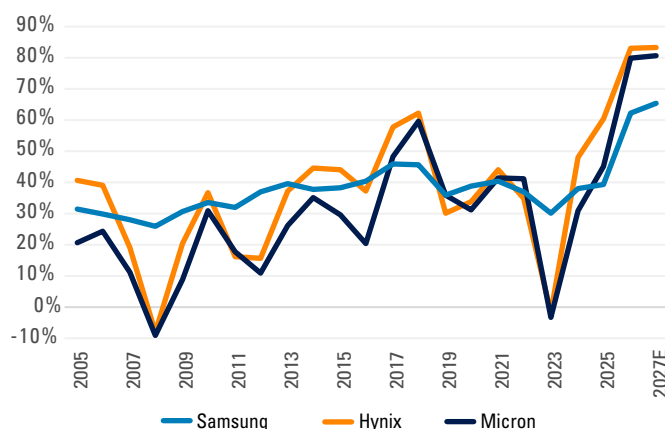
Semiconductors = GICS "Semiconductors & Semiconductor Equipment" + Samsung Electronics (for MSCI EM). Energy = GICS "Oil Gas & Consumable Fuels" + "Energy Equipment & Services."

4. Sanford C. Bernstein & Co., UBS, Pzena analysis

## MARGINS IN HISTORICAL CONTEXT

This generational memory pricing boom has produced an unprecedented level of margin expansion for the major manufacturers. Current gross margins are well above prior-cycle peaks. Industry structure has improved over the last two decades through consolidation, but commoditized memory has always been characteristically cyclical. Periods of extreme margin expansion have historically triggered a supply response and demand destruction, resulting in price collapses. Margins at today's elevated levels have proven difficult to sustain. Samsung's diversified business model has historically exhibited materially lower cyclical volatility, offering some insulation relative to pure-play memory companies.

### Samsung/Hynix/Micron Gross Margins



Source: Company reports, Capital IQ estimates, Pzena analysis

## THE BOTTOM LINE

Semiconductors are the engine of emerging markets' earnings growth in 2026, with memory at the center of the story. The operating leverage inherent in the business model amplifies returns in strong pricing environments but also means earnings are sensitive to commodity price shifts. With industry consolidation providing a more supportive backdrop than that of prior cycles, the structural case for memory is stronger than it has been historically. The challenge is distinguishing structural improvement from cyclical peaks and managing the exposure accordingly.

## FURTHER INFORMATION

*These materials are intended solely for informational purposes. The views expressed reflect the current views of Pzena Investment Management, LLC (“PIM”) as of the date hereof and are subject to change. PIM is a registered investment adviser registered with the United States Securities and Exchange Commission. PIM does not undertake to advise you of any changes in the views expressed herein. There is no guarantee that any projection, forecast, or opinion in this material will be realized. Past performance does not predict future returns.*

*Samsung Electronics was held in our Emerging Markets Focused Value, Emerging Markets Select Value, Global Value, International Focused Value, International Value, and other portfolios as of May 14, 2026.*

*All investments involve risk, including loss of principal. The price of equity securities may rise or fall because of economic or political changes or changes in a company’s financial condition, sometimes rapidly or unpredictably. Investments in foreign securities involve political, economic and currency risks, greater volatility and differences in accounting methods. These risks are greater for investments in Emerging Markets. Investments in small-cap or mid-cap companies involve additional risks such as limited liquidity and greater volatility than larger companies. PIM’s strategies emphasize a “value” style of investing, which targets undervalued companies with characteristics for improved valuations. This style of investing is subject to the risk that the valuations never improve or that returns on “value” securities may not move in tandem with the returns on other styles of investing or the stock market in general.*

*This document does not constitute a current or past recommendation, an offer, or solicitation of an offer to purchase any securities or provide investment advisory services and should not be construed as such. The information contained herein is general in nature and does not constitute legal, tax, or investment advice. PIM does not make any warranty, express or implied, as to the information’s accuracy or completeness. Prospective investors are encouraged to consult their own professional advisers as to the implications of making an investment in any securities or investment advisory services.*