

Global Semiconductors

Drilling Down into Memory LTA(Long Term Agreement)

CITI'S TAKE

We project memory suppliers will pursue LTA through 3 primary structures: 1) Price Collar LTA, 2) Prepayment LTA, and 3) Capex-sharing LTA. While there has been market skepticism regarding the efficacy of memory LTA, we believe these new approaches to enhance the validity and binding power of LTA by having customers share cost burden partially through advance payments and Capex sharing. We foresee the LTA to provide memory suppliers improved visibility on long-term profitability, further supported by the customization of memory products and the extension of memory upcycle.

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Recent Market Developments in Memory LTAs — We forecast memory suppliers to pursue memory LTA through 3 primary structures. The Price Collar LTA (Case 1) involves setting an upper limit on memory contract prices. The Prepayment LTA (Case 2) requires customers to pay in advance to secure memory volume, and the Capex-Sharing LTA (Case 3) involves customers partially contributing to memory Capex. We anticipate the case 2 & 3 will directly increase the binding power of supply contracts as they require financial commitments from customers. Even for Price Collar LTA, memory suppliers will aim to make LTA more binding by minimizing risks from pricing volatility for their customers, ultimately settling on longer-than-expected contracts spanning from 3 years to 5 years. Thus, we project the volatility of memory market to decrease through the new LTA models and memory customization trend.

Case 1: Price Collar LTA — In terms of price collar LTA, memory suppliers will establish both a lower and an upper bound for memory prices, reducing the risks for themselves and customers. We expect the collar model to peg the pricing of LTAs to current market prices, but with a price cap and a price floor to mitigate any pricing volatility risk. We expect the contract period to range from 3 to 5 years.

Case 2: Prepayment LTA — The second type involves customers to make advance payments to secure specific memory supply volume. We estimate the prepayment amount to be around 30% of the total requested contract volume, which offers stronger binding effect compared to that of Case 1. Due to the recent explosive demand for 64GB DDR5 RDIMM and eSSD demand, we see memory customers are willing to pay in advance to secure the volume.

Case 3: Capex-sharing LTA — The third LTA structure requires customers to directly co-invest in memory Capex. Under this structure, customers share the costs of memory WFE such as ALD, EUV, and etching tools as well as fab construction. In exchange, customers receive a guaranteed allocation of production capacity. This LTA model is similar to purchasing a unit in a building prior to its completion, where the buyer secures dedicated space in advance. We view this as the most binding form of LTA, as it fundamentally aligns the financial interests of memory suppliers and customers who require a reliable and long-term supply to maintain aggressive AI investment strategies.

See Appendix A-1 for Analyst Certification, Important Disclosures and Research Analyst Affiliations



Implication — Contrary to the market concerns, we project Korean memory suppliers' mid-to-long-term profitability to become increasingly visible driven by new LTA structures amid lengthened memory upcycle and memory customization trend. With the robust AI memory demand and promising memory pricing negotiation outlook, we remain constructive on memory fundamentals.