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Global Semiconductors

Kimi K3, Another Jevon's Paradox

CITI'S TAKE

Moonshot AI launched the world largest open-weight model with the scale of 2.8T parameters (see Artificial Intelligence: Citi's Inference Ahead - Open Reaches the Frontier). While the full weights will be disclosed on 27 July, Kimi K3 outpaces global frontier models by offering lower cost per token through key architectural technologies, according to media reports. We anticipate the Kimi K3 launch will drive memory demand for Server DDR5 and eSSD due KV cache demand growth and token growth from AI agents. We maintain our constructive view on the memory market.

Peter Lee[AC]
+82-2-3705-0720
peter.sc.lee@citi.com

Jayden Oh
+82-2-3705-0747
jayden.oh@citi.com

Moonshot AI unveils the world's largest open-weight model — Moonshot AI (BBC, 18-Jul-2026) released Kimi K3, a 2.8T parameter model which would be the largest open-weight LLM to date. While Kimi K3 will be the world's first open-weight model unveiled publicly, the full weights will be disclosed on 27 July. The model is aimed at long-horizon agentic work. Commercially, Kimi K3 outpaces frontier proprietary models by a wide margin, with cheaper cost of US$0.3 per million cache-hit input tokens and US$15 output. Given efficiency and significant performance, Kimi K3 requires multi-node cluster with supernode configurations of >64 GPUs. See latest comments from our global head of technology research, Heath Terry: Artificial Intelligence: Citi's Inference Ahead - Open Reaches the Frontier.

Kimi K3's key technology — To enable such a distinctive performance, Kimi K3 utilized (Link) three architectural levers: 1) Kimi Delta Attention (KDA), 2) Attention Residuals (AttnRes), and 3) Stable LatentMoE. KDA is a hybrid linear attention mechanism which keeps the 1mn token context-window affordable. Kimi K3 also uses Attention Residuals to selectively retrieve representations across model depth. The model works under extreme MoE sparsity based on Stable LatentMoE framework in order to activate 16 of 896 experts per token. Through those levers, Moonshot AI noted that Kimi K3 yields 2.5x better scaling efficiency than K2, according to the technical report.

Implication: another Jevons' Paradox — According to media and official reports, Kimi K3 outperforms rival models on benchmarks and appears to utilize distillation techniques similar to DeepSeek's. Kimi K3 appears to have strong training efficiency, but the inference efficiency should be comparable to other frontier models and may fall behind due to enlarging KV cache footprint. All in all, even if Kimi K3 is widely utilized, we expect the demand for commodity memory including server DDR5 and eSSD to increase more. Similar to the impact of DeepSeek, we think Kimi K3's launch is a positive catalyst for memory demand, as we expect another Jevon's Paradox effect from the launch. Moreover, given that Kimi K3 is an open source(weight)

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model, we project a number of AI agents leveraging the model will release going forward. Given the AI agents will increasingly generate tokens, thus requiring more memory, we remain constructive on memory suppliers.

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Citigroup Global Markets Korea Securities Limited	Peter Lee; Jayden Oh

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