



AI Hardware Bottleneck Shapes Future Tech Giants

Description

High-performance processors, primarily manufactured by Nvidia, have been crucial to the development of contemporary artificial intelligence (AI). However, as this technology has evolved, a significant challenge has emerged: the inability to efficiently manage and store the vast amounts of data generated and utilised by AI systems.

This data challenge has paved the way for the emergence of a new wave of technology companies poised to reach trillion-dollar valuations. Several of these companies remain largely unnoticed by investors, presenting both opportunities and risks for prospective stakeholders.

The components within AI data centres share similarities with typical personal computers. Both require a central processing unit (CPU), dynamic random access memory (DRAM), and data storage devices. However, data centres link multiple systems into a vast network, enhancing computational capacity. Despite this configuration, owners of these facilities appear to have underestimated their memory requirements.

This oversight has significantly benefited Micron Technology, a company that produces computer memory. For the fiscal quarter ending in February, Micron reported a year-over-year net income increase of over threefold, driven by a 74% revenue surge. The year-to-date rise in memory prices of approximately 40% and a dramatic 240% increase over the past year have bolstered its stock value by over 237% in 2026 alone, elevating its market capitalisation to over \$1 trillion.

SK Hynix, a South Korean company, is also capitalising on this demand, manufacturing both memory chips and data storage solutions. Its stock has similarly experienced a sharp increase, joining the ranks of several trillion-dollar firms alongside Samsung, which benefits from its strong position in the memory market.

Despite notable pricing increases for memory products, analysts from Citigroup predict continued growth in DRAM prices into the next year, with Gartner projecting a staggering 125% rise for 2026. In this context, investors looking to capitalise on the AI boom may find opportunities among these emerging firms.

Vocabulary List:

1. **utilised** //ˈju:tə,laɪzd// (verb): used to do a job or purpose
2. **poised** //pɔɪzd// (adjective): ready to begin or likely to happen soon
3. **stakeholders** //ˈsteɪk,həʊldərz// (noun): people or groups with an interest or concern
4. **components** //kəm'pɒnənts// (noun): parts that form a machine or system
5. **underestimated** //ˌʌndər'estɪmeɪtɪd// (verb): thought to be smaller or less important
6. **bolstered** //ˈbɒlstəd// (verb): made stronger or helped something grow



Comprehension Questions

Multiple Choice

1. What has been crucial to the development of contemporary artificial intelligence (AI)?
 - Option: High-performance processors
 - Option: Data storage devices
 - Option: Central processing units
 - Option: Dynamic random access memory
2. Which company reported a year-over-year net income increase of over threefold for the fiscal quarter ending in February?
 - Option: Nvidia
 - Option: SK Hynix
 - Option: Micron Technology
 - Option: Samsung
3. What is the projected rise in DRAM prices for 2026 according to Gartner?
 - Option: 40%
 - Option: 74%
 - Option: 125%
 - Option: 240%
4. Which company is mentioned as benefiting from its strong position in the memory market alongside SK Hynix?
 - Option: Micron Technology
 - Option: Intel
 - Option: Samsung
 - Option: Nvidia
5. What type of memory did Micron Technology produce that contributed to its stock value increase?
 - Option: Flash memory
 - Option: Static random access memory
 - Option: Dynamic random access memory
 - Option: Read-only memory



6. What percentage increase in memory prices was reported year-to-date for Micron?

- Option: 20%
- Option: 40%
- Option: 74%
- Option: 100%

True-False

- 7. High-performance processors are mainly manufactured by Intel.
- 8. Micron Technology's market capitalisation has exceeded \$1 trillion.
- 9. SK Hynix manufactures both memory chips and data storage solutions.
- 10. The components within AI data centres are identical to typical personal computers.
- 11. Analysts from Citigroup predict a decline in DRAM prices next year.
- 12. Investors are advised to overlook emerging firms capitalising on the AI boom.

Gap-Fill

- 13. The inability to efficiently manage and store the vast amounts of data generated by AI systems is a significant challenge _____ .
- 14. Micron reported a year-over-year net income increase of over threefold, driven by a _____ revenue surge.
- 15. The year-to-date rise in memory prices is approximately _____ for Micron.
- 16. SK Hynix is a South _____ company manufacturing memory chips.
- 17. Investors looking to capitalise on the AI boom may find opportunities among these emerging _____ .



18. The components in data centres link multiple systems into a vast _____ .

Answer

Multiple Choice: 1. High-performance processors 2. Micron Technology 3. 125% 4. Samsung 5. Dynamic random access memory 6. 40%

True-False: 7. False 8. True 9. True 10. False 11. False 12. False

Gap-Fill: 13. . 14. 74% 15. 40% 16. Korean 17. firms 18. network

CATEGORY

1. Business - LEVEL6

POST TAG

1. AI
2. ESL learning
3. esl news
4. hardware bottleneck
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