

Semiconductors

Thematic investing and megatrends: Stargate poised to accelerate global Al arms race

After two years of significant investments in Al infrastructure, investors are counting 2025 to be a transformational year for Al. As market leaders will continue to deploy a large amount of capital in Al infrastructure buildout to widen their competitive moats, new themes in the downstream are rising, including Al agents, humanoid robots, robotaxi, etc. We remain bullish on Al demand.

We continue to rank Al theme as our top pick for 2025. Market leaders will continue to enjoy the Al tailwind beyond 2025. Hyperscalers are expected to collectively spend US\$271bn (28% YoY) in capex in FY25E, per Bloomberg consensus.

Given this sustained capex cycle, we think the AI supply chain leaders are well-positioned to benefit from the ongoing AI infra. investments. **Selected beneficiaries in semiconductor field include Nvidia** (NVDA US, NR), **Broadcom** (AVGO US, NR), **Marvell** (MRVL US, NR), **TSMC** (TSM US, NR), **SK Hynix** (000660 KS, NR), and **ASML** (ASML US, NR). **Domestic beneficiaries are 1) key suppliers in global AI supply chain, such as Innolight (300308 CH, BUY), Eoptolink** (300502 CH, NR), **TFC** (300394 CH, NR), **Shengyi Tech** (600183 CH, BUY) and 2) key AI chip designer/makers benefitted from domestic investments in this AI arms race, *i.e.*, Cambricon (688256 CH, NR), Hygon (688041 CH, NR), and SMIC (688981 CH, NR).

- Overseas: Announcement of the Stargate Project, a US\$500bn Al infrastructure initiative aimed at securing US' dominance in Al landscape. The project plans to invest over the next four years with an initial deployment of US\$100bn, focusing on data centers, compute clusters, and other Al-related resources. The project will be spearheaded by SoftBank (financial responsibility), OpenAl (operational responsibility). In addition, Oracle (ORCL US, NR, share up +7% on 21 Jan market close), Nvidia (NVDA US, NR, +3%), ARM (ARM US, NR, +4%), Microsoft (MSFT US, -0%) and OpenAl (private) will be the key initial technology partners.
 - The scale of the project is unprecedented, surpassing previous landmark US technological investments, such as the Manhattan Project (est. US\$33bn, inflation adj.), Apollo program (est. US\$254bn, inflation adj.), or the CHIPS Act (~US\$280bn). We believe this is an additional spending in Al infrastructure that has yet to be factored into current capex/valuation models. We think the current beneficiaries will continue to grow beyond 2026 (vs. investors' debate in Al demand sustainability).
- Domestic: We expect China to significantly ramp up its Al and semi investments in response to US Al dominance and other sovereign Al initiatives. In Jan 2025, China launched a RMB60bn (US\$8.2bn) Al investment fund just days after the US further tightened its Al export controls. The fund was incorporated in Shanghai as a JV of state-backed Guozhi investment and the China Integrated Circuit Industry investment Fund (CICF) Phase III (link). We expect investments from the private sector will follow as well. ByteDance was rumoured (which it denied) to invest US\$12bn in Al infrastructure and chip procurement in 2025 (link), of which ~US\$5.5bn will be used to source Al accelerators from both overseas and domestic suppliers. The rest will be directed towards overseas Al computing infrastructure to train foundation models.

OUTPERFORM (Maintain)

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Figure 1: Landmark US technological investments in history

Project	Year and spending (US\$mn)	Today (adj. for inflation)
Manhattan Project	1945: 1,890	33,000
Apollo Project	1960-1973: 28,000	254,000
CHIPS Act	2022 : 280,000	N/A
Stargate Project	2025 : 500,000	N/A

Source: Moneyzine, The Planetary Society, Federal Reserve Bank of Minneapolis, CMBIGM estimates Note: inflation adjusted based on US CPI index



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