

Strategy

AI arms race shows no signs of peaking – Demand surge & capital reinvestment support Taix rally

Key message

1. AI arms race shows no signs of peaking, capex is not overheated, demand is growing, and profitability of AI applications will support the current upcycle.
2. We expect the Taix upcycle to advance towards 50,000 points by year-end, with ample runway for further upgrades fueled by consensus earnings forecasts.
3. We recommend focusing on computing power upgrades and AI applications – beneficiaries include supply chains of Vera Rubin, AI glasses and robotics.

Event

The AI arms race has yet to reach its peak, primarily because capital intensity has not reached bubble levels, while demand for computing power remains in the early stage of expansion, and improved CSP profitability is sustaining the ongoing investment upcycle.

Analysis

AI investment at early stage of upcycle. The rise of generative AI in 2H23 officially marked the beginning of the AI arms race. Now in its fourth year, many are concerned that bubbles surrounding AI investment are taking shape. However, a review of history shows that during major technological advancements, such as electrification in the 1920s and the internet boom in the 1990s, peak investment levels typically did not occur until after the fifth year. This suggests that the current AI cycle is at its early or middle stage.

At its core, the AI arms race hinges on compute, data, and model scaling. It demands a multi-year, multi-layered infrastructure build-out across data centers, power systems and semiconductor supply chains. This means the investment cycle has room to extend and is far from an overheated stage.

In terms of capital intensity, current AI investment is well below bubble levels. To assess whether an investment cycle is overheating, capital intensity, defined as capex as a proportion of operating cash flow, is a key metric. At present, the capital intensity of major US CSPs such as Amazon, Microsoft, Google and Meta are around 75%, the highest since the onset of the AI investment cycle. While this has raised some concerns, it remains significantly below the peak levels of around 130% observed during the dotcom bubble around 2000. This suggests there is a substantial buffer and no clear indication of irrational expansion at the moment.

More importantly, the current wave of AI investment is producing tangible returns. Based on the latest earnings results, the net margins of major CSPs have risen significantly from around 20% prior to the AI cycle to 35%, indicating exceptional investment efficiency and creating a positive feedback loop of ‘investment-profits-reinvestment’. Meanwhile, accelerating cloud revenues are driving growing service consumption and capex. This suggests that the current investment cycle is backed by concrete demand rather than being a leverage-driven, bubble-like expansion, as seen in previous cycles.

Demand for computing power sees near-vertical growth. If concerns remain regarding the sustainability of growing capex, demand-side data could provide a clear answer. Over the past 6-12 months, global demand for AI computing power has showed near-vertical growth, as evidenced by two key indicators: (1) Anthropic’s (US) annualized sales have reached US\$45bn, a 15x YoY increase and a 5x rise compared with the end of 2025, highlighting accelerating monetization of AI applications; (2) Google’s monthly token processing volume has reached 3,200 trillion, growing 7x YoY and reflecting a rapid expansion in computing demand.

It is worth noting that the current demand boom is primarily driven by conversational generative AI. Looking ahead, as agentic AI becomes more prevalent, its multi-step decision-making and task execution capabilities will significantly increase token consumption by potentially hundreds to thousands of times, further driving computing demand to unprecedented levels. Based on the current trends, global token demand is projected to exceed 24x current levels by 2030F, indicating that the expansion of AI infrastructure is entering a critical stage of acceleration.

Investment strategy – Capitalize on Vera Rubin & emerging AI application opportunities. Against the backdrop of an AI investment cycle that has yet to peak and demand that continues to expand, we recommend focusing investments on two key themes: (1) beneficiaries of compute infrastructure specification upgrades; and (2) the rise of new AI application scenarios. The first theme centers on the Vera Rubin-related supply chain, spanning advanced packaging, liquid cooling, power, CCL/ PCB, high-speed transmission, and memory, while the second highlights AI glasses and humanoid robots as the most promising emerging applications.

AI glasses are regarded as the next-generation personal computing platform after smartphones. Supply chains related to optical components, edge AI chips, and voice interaction modules are expanding rapidly as demand for product validation, driven by products such as Meta Ray-Ban, continues to increase. Meanwhile, the commercialization of humanoid robots is accelerating as AI gains stronger decision-making and execution capabilities, with developments from Tesla (US) (Tesla Optimus) and Figure AI (US) driving up demand for servo motors, sensors, and edge-side AI chips.

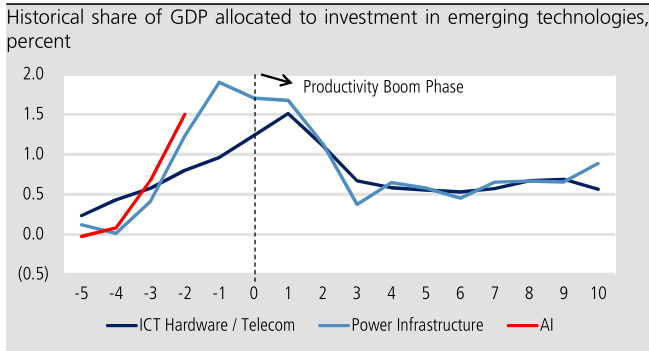
Conclusion & top picks

When will the AI arms race peak? Historically, major investment cycles peak after the fifth year. At present, capital intensity is around 75%, well below the 130% level seen during the 2000 dotcom bubble. On the demand side, the surge in tokens driven by agentic AI remains in its early stages. From a financial perspective, CSPs have seen a clear improvement in net margins, forming a healthy investment–return–reinvestment cycle. Overall, the current AI cycle appears to be extending with no signs of peaking.

Against this backdrop, we believe the medium- to long-term bull trend in Taiwan equities is likely to remain intact. We maintain our 2026F Taiex target of 50,000 points, with ample runway for further upgrades fueled by consensus earnings forecasts. Taiwan equities are currently trading at around 19x 2027F PE, which suggests upside potential relative to the historical peak of 21x.

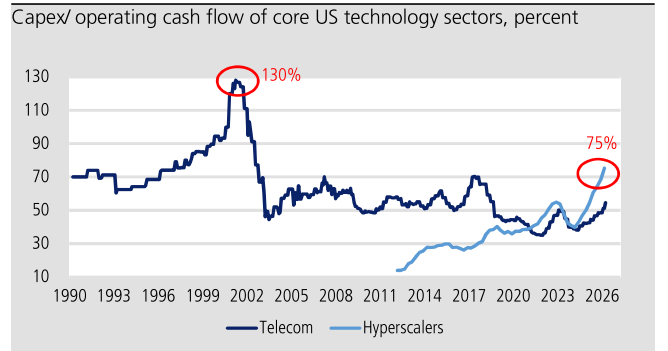
We recommend prioritizing the Vera Rubin-related supply chain, which stands to benefit from specification upgrades, while also closely monitoring application-side opportunities such as AI glasses and humanoid robots to capture the long-term growth trend of AI extending from infrastructure to end-user applications.

Figure 1: AI arms race only in its fourth year; AI investment cycle has room to run, with historical ICT & power cycles peaking after year five



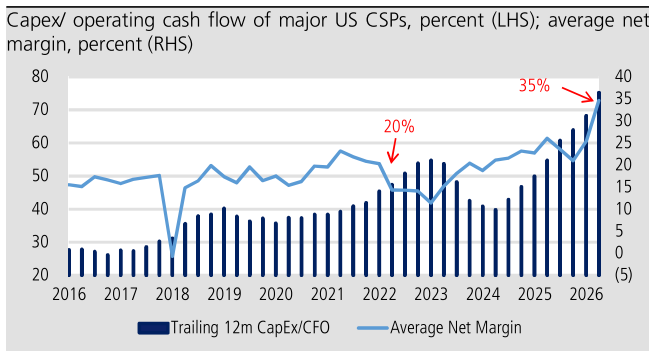
Source: Bloomberg; KGI Research

Figure 2: AI arms race drive CSP capex expansion, capital intensity remains below 2000 dotcom bubble peak, confirming investment cycle not overheated



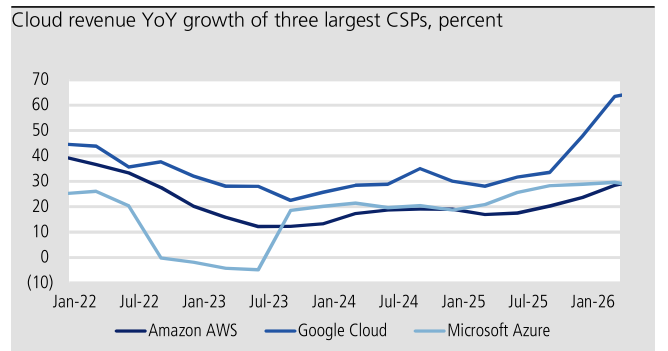
Source: Bloomberg; KGI Research

Figure 3: AI investment by major CSPs translates into returns with net margins rising from 20% to 35%, supporting further capex expansion, resulting a virtuous cycle



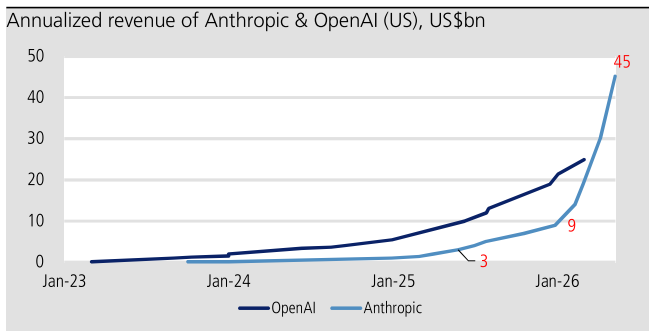
Source: Bloomberg; KGI Research

Figure 4: Generative AI drive compute demand, supporting parallel growth in CSP cloud revenue & capex, forming a demand-driven virtuous cycle



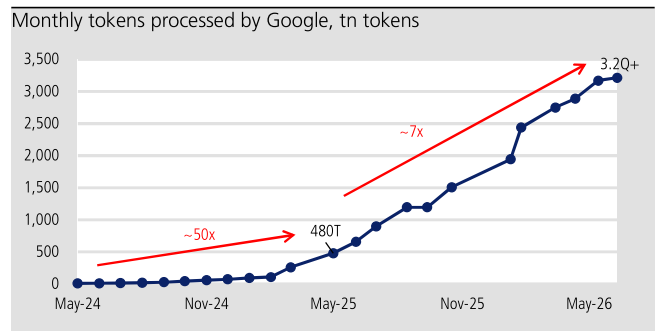
Source: Bloomberg; KGI Research

Figure 5: Anthropic's latest annualized revenue is 15x higher than a year ago & 5x higher than end of 2025



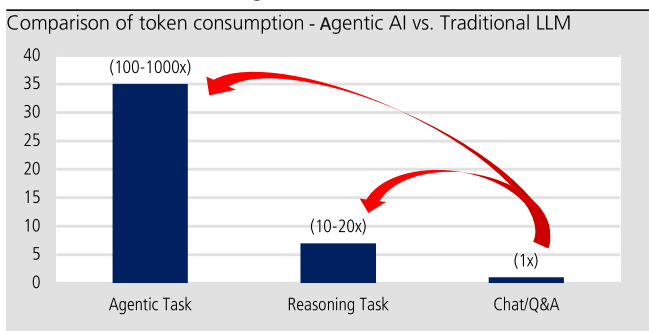
Source: KGI Research

Figure 6: Number of tokens processed by Google each month has increased seven-fold over the past year



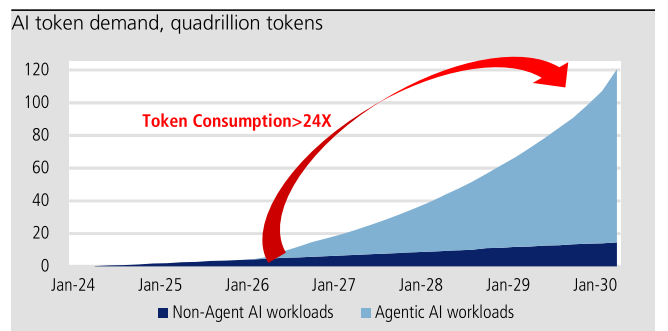
Source: KGI Research

Figure 7: Token consumption for agentic AI tasks can be 100x to 1,000x that of general Q&A tasks



Source: KGI Research

Figure 8: Agentic AI driving explosive growth in token demand



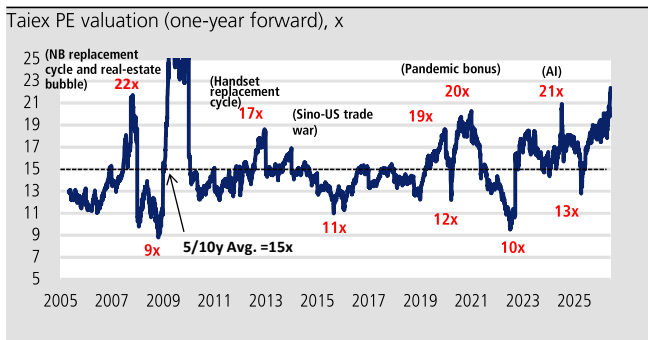
Source: KGI Research

Figure 9: Taiex constituent earnings forecasts & valuations

Earning (NT\$bn)	2021	2022	2023	2024	2025	2026F	2027F
Taiex	3,917	3,771	2,682	3,780	4,344	6,085	7,612
Taiex excl. TSMC	3,320	2,755	1,844	2,607	2,626	3,420	4,215
Tech	1,914	2,147	1,698	2,249	3,101	4,593	5,975
Tech excl. TSMC	1,317	1,130	860	1,075	1,383	1,929	2,578
TSMC	597	1,017	838	1,173	1,718	2,664	3,397
EPS growth (%)							
Taiex	78.1	(3.7)	(28.9)	40.9	14.9	40.1	25.1
Taiex excl. TSMC	97.4	(17.0)	(33.1)	41.4	0.7	30.3	23.2
Tech	51.7	12.2	(20.9)	32.4	37.9	48.1	30.1
Tech excl. TSMC	77.1	(14.2)	(23.9)	25.1	28.6	39.4	33.7
TSMC	15.2	70.4	(17.5)	39.9	46.4	55.1	27.5
P/E (x)							
Taiex	37.7	39.2	55.1	39.1	34.0	24.3	19.4
Taiex excl. TSMC	26.1	31.5	47.0	33.3	33.0	25.4	20.6
Tech	64.3	57.3	72.4	54.7	39.7	26.8	20.6
Tech excl. TSMC	47.0	54.8	72.0	57.6	44.8	32.1	24.0
TSMC	102.4	60.1	72.8	52.1	35.6	22.9	18.0

Source: KGI Research

Figure 10: Taiex now trading at 19x (2027F) forward PE versus long-term average of 15x PE



Source: TEJ; KGI Research

Figure 11: Taiex & corresponding valuations

2026F PE	Equivalent index level (points)	2027F PE	Equivalent index level (points)	26-27F Avg. PE	Equivalent index level (points)
15x	27,996	15x	35,025	15x	31,511
16x	29,863	16x	37,360	16x	33,611
18x	33,596	18x	42,030	18x	37,813
20x	37,329	20x	46,700	20x	42,014
21x	39,195	21x	49,035	21x	44,115
22x	41,061	22x	51,370	22x	46,216
23x	42,928	23x	53,705	23x	48,316

Source: TEJ; KGI Research

Figure 12: Our top picks

Sector/ theme	Company	Code	Investment rating	Target price (NT\$)	Mkt cap (US\$m)	Share price (NT\$)	Change +/- (%)	EPS (NT\$)		P/B (x)		PE (x)		P/B (x)		P/B (x)		ROE (%)		Cash yield (%)	
								2026F	2027F	2026F	2027F	2026F	2027F	2026F	2027F	2026F	2027F	2026F	2027F	2026F	2027F
AI supply chain	TSMC	2330 TT	Outperform	2,600	1,963,698	2,380.0	9.2	102.74	131.02	55.1	27.5	23.2	18.2	0.4	0.7	8.3	6.1	41.4	38.8	1.1	1.2
	MediaTek	2454 TT	Outperform	6,150	230,914	4,525.0	35.9	67.98	111.95	2.8	64.7	66.6	40.4	24.1	0.6	17.2	15.1	26.3	39.5	1.5	1.5
	KYEC	2449 TT	Outperform	380	11,924	306.5	24.0	9.23	14.37	2.5	55.6	33.2	21.3	13.2	0.4	6.8	5.7	21.4	29.0	1.8	2.8
	HON	7769 TT	Outperform	8,800	84	7,175.0	22.6	122.62	221.68	78.4	80.8	58.5	32.4	0.7	0.4	18.9	13.9	34.9	49.5	1.2	2.2
	Kinik	1560 TT	Outperform	520	3,321	697.0	(25.4)	13.47	17.34	45.4	28.7	51.8	40.2	1.1	1.4	11.0	9.2	22.8	25.0	1.0	1.3
	Aspeed	5274 TT	Outperform	10,500	21,764	18,095.0	(42.0)	157.46	209.98	55.9	33.4	114.9	86.2	2.1	2.6	65.1	49.1	66.3	65.0	0.7	0.9
	AURAS	3324 TT	Outperform	1,450	3,450	1,165.0	24.5	59.27	81.87	114.0	38.4	19.7	14.2	0.2	0.4	7.6	5.8	43.5	46.5	2.2	3.0
	DELTA	2308 TT	Outperform	2,940	195,043	2,360.0	24.6	44.71	73.51	93.2	64.4	52.8	32.1	0.6	0.5	16.8	12.3	36.7	44.3	1.0	1.6
	EMC	2383 TT	Outperform	5,485	55,407	4,860.0	12.9	77.79	137.13	90.3	76.3	62.5	35.4	0.7	0.5	28.4	19.0	49.9	64.2	1.0	1.7
	GCE	2368 TT	Outperform	1,550	21,138	1,275.0	21.6	35.31	55.21	90.0	56.4	36.1	23.1	0.4	0.4	14.8	10.4	47.1	53.6	1.5	2.4
	Jentech	3653 TT	Outperform	4,840	18,628	3,990.0	21.3	53.96	112.49	50.0	108.5	73.9	35.5	1.5	0.3	22.5	18.0	32.4	56.4	0.8	1.7
	Kaori	8996 TT	Outperform	1,390	1,515	1,050.0	32.4	23.05	36.08	157.3	56.5	45.5	29.1	0.3	0.5	16.1	11.7	41.9	46.7	1.1	1.7
	Unimicron	3037 TT	Outperform	1,000	49,310	975.0	2.6	14.31	27.77	240.7	94.1	68.2	35.1	0.3	0.4	12.2	9.6	20.4	31.8	0.7	1.3
NTC	2408 TT	Outperform	520	46,050	419.5	24.0	58.41	90.06	2902.3	56.5	7.2	4.7	0.0	0.1	3.6	2.0	74.6	62.4	2.8	4.3	
AI applications	Advantech	2395 TT	Outperform	545	14,227	515.0	5.8	17.81	24.11	45.5	35.4	28.9	21.4	0.6	0.6	8.4	7.4	28.6	36.8	3.1	4.2
	Hiwin	2049 TT	Outperform	478	4,097	364.0	31.3	8.75	12.53	102.9	43.2	41.6	29.1	0.4	0.7	3.3	3.1	8.1	11.0	1.1	1.6
	Airoha	6526 TT	Outperform	690	3,805	714.0	(3.4)	20.60	25.32	19.0	22.9	34.7	28.2	1.8	1.2	5.8	5.4	17.3	19.9	1.2	1.5

Source: KGI Research

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