Strategy

AI reshaping tech industry cycles; engage upon pullbacks

Key message

1. AI is reshaping the tech industry's business cycle, from natural hardware replacement which takes place every 3-5 years, to tech-driven upgrades that happen every 12-18 months.
2. AI platform evolutions will trigger comprehensive component upgrades and redefine seasonality; operations of AI suppliers will be robust in 2026F, even in the 1Q slow season, with buoyant full-year earnings growth of 20-60% YoY.
3. Investors are advised to ignore recent market noise and engage AI stocks on pullbacks.

Event

The global tech industry is in a growth trajectory that is fundamentally different from the past. The key drivers are no longer consumer-driven replacement cycles but rather the demands of AI server evolution, which include computational power requirements, model evolution, and platform upgrade cycles.

Analysis

AI is reshaping the tech industry's business cycle. Over the past three decades, tech industry cycles were dictated by consumer hardware. PC replacement waves from 1990 to 2000 and the golden era of smartphones after 2010 both featured demand fluctuations every 3-5 years, depending on the intervals between consumers purchasing new devices.

AI, however, is fundamentally different. The pace of AI model proliferation far exceeds any consumer product, creating computing requirements that are highly complex, highly utilized, and endure high-intensity usage. As a result, the upgrade cycles for GPU and CPU platforms have shortened from 3-5 years to just 12-18 months. From Hopper and Blackwell to Vera Rubin, these new computing architectures are prompting businesses to reset capex almost annually.

This marks a shift from demand-driven to technology-driven cycles. Enterprises are upgrading equipment not because the hardware is too old to function, but because model evolution brings about immediate improvements in efficiency, cost structure and latency, as computing platforms now represent the core of competitive advantage. CSPs cannot afford to wait for hardware replacement on the traditional end-of-life usage schedule. Equipment upgrades are now a consistent capital expenditure, fueling demand for semiconductors and components that has never been seen before. For the tech supply chain, business cycles no longer hinge on a consumption recovery, but rather iterations of AI and GPU models.

More importantly, AI adoption is accelerating much faster than any previous tech revolution. PCs took nearly 20 years to accumulate one billion users, and for smartphones, it took 6-7 years, whereas generative AI transformed global behavior in about a year after launch and triggered aggressive investment by CSPs. The center of gravity in global tech spending is shifting rapidly from consumer electronics to AI, creating a structural super-cycle.

AI platform upgrades trigger comprehensive evolution of components, creating a new structural growth model. A defining feature of the AI era is that each architectural transition sparks ecosystem-wide upgrades, generating value expansion beyond a single product line. GPU advancements not only enhance chip performance but also drive simultaneous upgrades of memory, packaging, PCB, thermal solutions, power systems, and network switches to accommodate higher performance and power consumption.

Take memory as an example. The upgrade from HBM2e to HBM3e has seen products of each generation multiply in bandwidth and capacity, which in turn have boosted module values and accelerated the adoption of advanced packaging. Processes such as CoWoS and SoIC for 2.5D/3D integration have become standard practice, while demand for ABF substrates and high-end CCL has also surged, which has allowed component suppliers to benefit from tight supply conditions and better profitability, given high technical barriers and slow capacity expansions.

Power and thermal management also present similar challenges. GPU power consumption has jumped from 300W to 500W and is approaching kilowatt levels, which requires a complete redesign of power delivery and cooling architectures. High-efficiency power supplies, liquid cooling systems, and high-density power distribution have become standard component requirements, increasing the per-device content value of each component, and creates new markets. The shortened AI server replacement cycle means that every refresh will come with full-system upgrades.

Network infrastructure is also critical. AI training requires massive GPU computing power and high-speed data exchange, driving InfiniBand and high-speed Ethernet standards to advance from 200G to 400G, 800G, and even 1.6T. Specifications and values for optical transceiver modules, switches, and cables continue to rise, creating rigid demand.

These system upgrades provide sustained earnings growth for Taiwan's AI supply chain. Even after significant growth in 2024–2025F, 2026F could still deliver 20–60% YoY earnings growth from a high base, as each new GPU generation forces component upgrades.

AI is reshaping seasonality, making peak seasons stronger and off-seasons less weak. Traditionally, the tech industry enters a peak season in the fourth quarter, driven by PC and consumer electronics demand, while the first quarter is typically a low season due to inventory adjustments. However, AI is rewriting this seasonal pattern.

In 4Q25, despite an unclear recovery in PCs and smartphones and a weaker peak season for consumer electronics, Nvidia's (US) GB300 series shipments surged, significantly improving order visibility for Taiwan's supply chain and driving system assembly, ABF substrate capacity expansion, and accelerated CoWoS advanced packaging ramp-ups. Entering 1Q26F, sustained AI-related capex has made defying seasonality the new norm.

For example, in the thermal module sector, 4Q25F revenue grew by 23% QoQ, far above the historical average of 4–5%, while 1Q26F revenue is expected to grow by 1% QoQ, significantly better than the historical average decline of 9–10% QoQ.

AI-driven structural transformations will sustain Taiwan equities' strong rally. The current strength of Taiwan's stock market is not speculative; it reflects profound structural shifts brought by AI. On the demand side, the cycle has evolved from a 3–5 year consumer-driven pattern to a 12–18 month technology arms race. On the supply side, architecture upgrades are driving a value re-rating across the entire supply chain and optimizing profitability structures. From a timing perspective, robust AI shipment growth is smoothing out seasonal volatility. Against this backdrop, Taiwan's supply chain - serving as the global AI hardware arsenal - is undergoing a historic transformation in valuation frameworks.

Conclusion & top picks

We recommend investors look beyond short-term noise and use market volatility as an opportunity to accumulate shares in AI leaders with technological advantages and clear order visibility, positioning for a long-term bull cycle. We expect the Taiex to reach 30,000 points by 1Q26F (approximately 19x PE) and 33,000 points by end-2026F (approximately 21x PE). Investors should focus on AI-related segments working on significant specification upgrades, including foundry, GPU/ ASIC, CoWoS advanced packaging, test interface, memory, ODM, thermal solution, CCL, ABF substrate, PCB, switches, and power system firms.

Figure 1: AI is reshaping the technology industry cycle, shifting from a 3–5 year hardware upgrade cycle to a 12–18 month technology platform refresh cycle

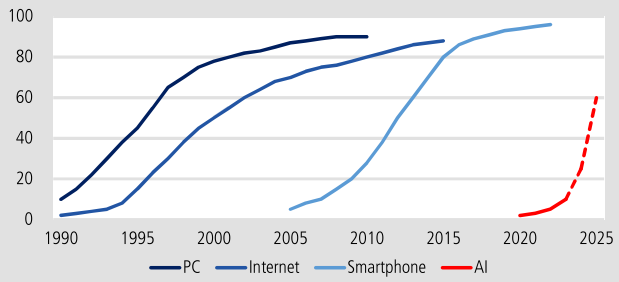
Technology cycle comparison

Item	PC / Mobile cycle	New AI era cycle
Cycle duration	Primarily 3–5 years for device replacement	New platform launched every 1–2 years → Major upgrades in both platform and components
Growth Drivers	Feature improvements, OS updates, design refresh	Computing power optimization, support for new AI models, enterprise application demand
Component upgrade	Mainly CPU & GPU upgrades	Full-stack upgrades across GPU, CPU, advanced packaging, HBM, NPU, and power systems
Investment insight	Equipment and consumer-driven cyclical expansion with pronounced seasonality	Comprehensive upgrades in hardware, power, packaging, memory, power grid, and liquid cooling → Structural growth

Source: KGI Research compiled

Figure 2: AI adoption is accelerating far faster than any previous tech revolution, shifting the industry's growth driver from consumer electronics to AI capital expenditure, creating a "structural super-cycle"

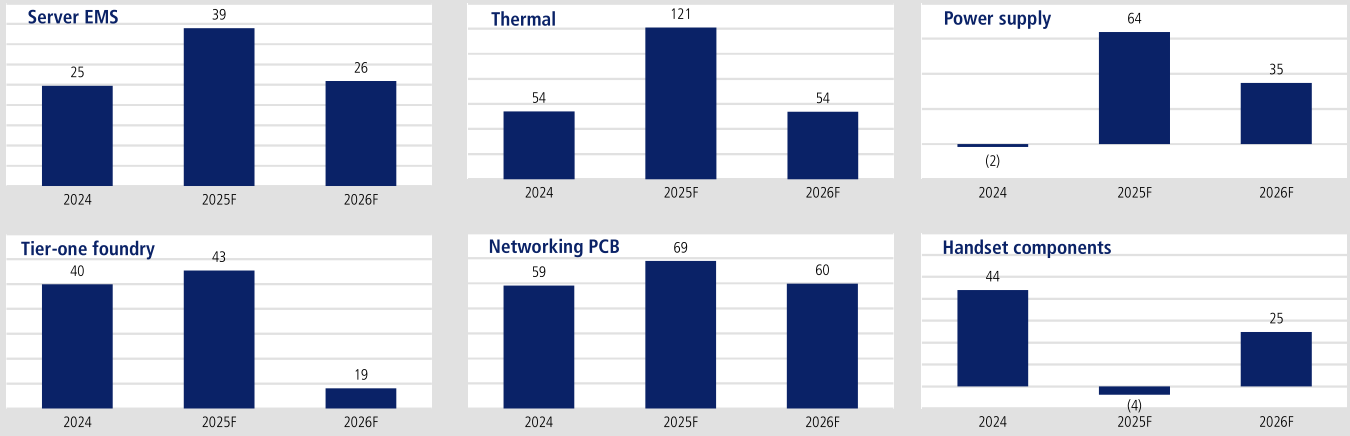
Technology hardware or technology adoption evolution, percent



Source: CoatueJ; KGI Research compiled

Figure 3: In the AI era, the traditional 3–5 year hardware upgrade cycle is being completely reshaped; GPU platforms now see 12–18 month architectural transitions, driving Taiwan's AI supply chain to sustain strong earnings growth of 20–60% YoY in 2026F despite a high base

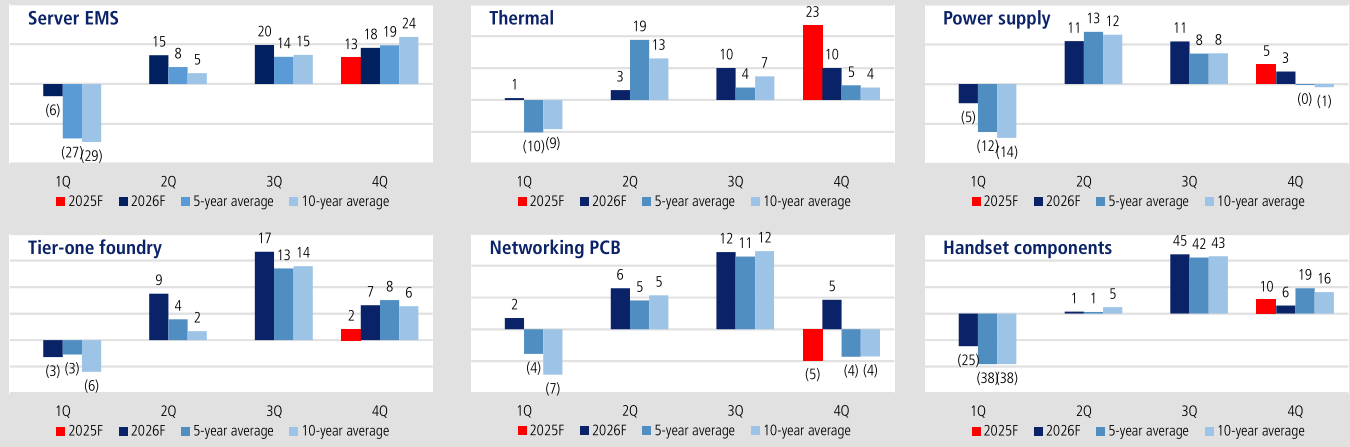
Annual earnings growth YoY by tech sub-sectors, percent



Source: Compiled and estimated by KGI Research

Figure 4: AI is reshaping seasonality in the tech industry, making the 4Q25F peak season stronger and the 1Q26F off-season less weak

Quarterly revenue QoQ growth rate by technology sub-sectors, percent



Source: Compiled and estimated by KGI Research

Figure 5: Earnings & valuations of Taiex sub-sector constituents

Tech	Earning YoY (%)					Forecast PE (x)		Non-tech	Earning YoY (%)					Forecast PE (x)	
	2022	2023	2024	2025F	2026F	2025F	2026F		2022	2023	2024	2025F	2026F	2025F	2026F
Server EMS	(1.7)	3.7	24.8	39.0	25.9	15.5	12.5	Cement	(50.7)	8.4	27.9	(14.2)	26.9	16.9	13.0
Thermal	34.5	20.5	54.0	120.9	53.9	28.9	17.6	Food	(13.6)	6.8	12.7	(0.3)	26.2	20.7	16.4
Power supply	15.1	2.4	(1.7)	63.9	34.9	30.7	23.2	Petrochemicals	(62.6)	(51.0)	(80.8)	(50.0)	254.1	153.5	37.7
ABF	102.5	(68.1)	(70.1)	67.4	181.3	67.0	22.2	Apparel	32.1	(11.0)	17.3	(16.3)	12.8	20.0	18.1
Optical communication	-	63.4	20.5	42.6	84.2	47.2	25.6	Footwear makers	100.0	(45.2)	18.0	(8.9)	18.0	22.4	19.0
IC design and service	94.8	5.3	29.9	(12.9)	83.7	71.9	37.3	Auto parts	113.5	25.1	44.3	(13.7)	24.3	13.1	10.4
Memory	(36.0)	-	-	-	1610.8	132.5	7.7	Industrial automation	5.2	(14.2)	6.6	2.0	24.2	32.9	22.7
Networking PCB	56.1	(22.8)	59.1	68.9	59.9	32.4	20.2	Bicycle	(12.7)	(44.8)	(88.9)	411.5	38.4	23.2	15.7
Networking	77.3	15.2	15.3	62.3	24.4	19.0	14.4	Container shipping	19.7	(94.4)	631.6	(56.0)	(33.4)	8.7	10.5
CCL	(7.7)	8.2	74.5	57.6	53.3	38.1	24.8	Steel	(73.9)	(90.6)	17.6	-	-	N.M	71.0
Tier-one foundry	70.4	(17.5)	39.9	42.7	19.1	22.5	18.9	Tourism	(46.5)	176.4	2.7	1.3	23.3	13.3	10.0
Second-tier foundries	56.3	(30.1)	(22.6)	(23.8)	35.7	17.1	12.6	Food	(40.3)	144.6	(11.9)	(40.1)	130.5	N.M	11.7
Handset components	33.9	(37.0)	44.0	(3.8)	24.9	15.7	12.3	Aerospace	127.3	26.8	(0.3)	(28.9)	56.0	46.8	27.3
Telecom	2.6	13.7	13.6	4.2	4.7	25.8	24.8	Airlines	(37.8)	185.5	52.7	(18.3)	(36.6)	9.0	13.9
IC design (handset/consumer electronics)	(2.9)	(32.6)	29.8	(3.2)	14.2	17.5	15.7	Heavy electrical	32.6	48.5	36.9	8.6	21.5	33.2	24.6
Handset EMS	(26.5)	4.1	7.4	(26.6)	24.7	15.3	12.3								
Cloud digital	16.3	17.1	13.1	9.1	19.0	21.7	15.7								

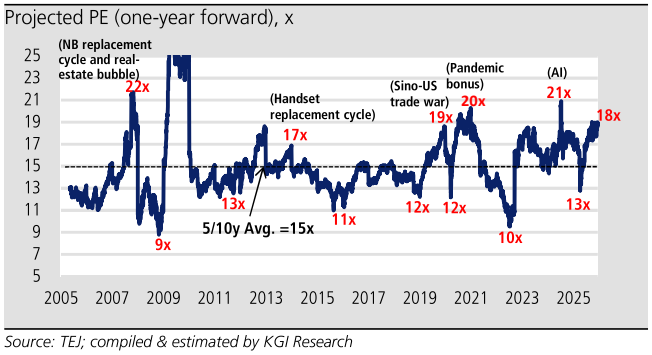
Source: Compiled & estimated by KGI Research

Figure 6: Earnings & valuations of Taiex constituents

Earning (NT$bn)	2021	2022	2023	2024	2025F	2026F
Taiex	3,917	3,771	2,682	3,780	4,293	5,139
Taiex excl. TSMC	3,320	2,755	1,844	2,607	2,618	3,146
Tech	1,914	2,147	1,698	2,249	3,040	3,703
Tech excl. TSMC	1,317	1,130	860	1,075	1,366	1,709
TSMC	597	1,017	838	1,173	1,674	1,994
EPS growth (%)						
Taiex	78.1	(3.7)	(28.9)	40.9	13.6	19.7
Taiex excl. TSMC	97.4	(17.0)	(33.1)	41.4	0.4	20.1
Tech	51.7	12.2	(20.9)	32.4	35.2	21.8
Tech excl. TSMC	77.1	(14.2)	(23.9)	25.1	27.0	25.2
TSMC	15.2	70.4	(17.5)	39.9	42.7	19.1
P/E (x)						
Taiex	23.0	23.9	33.5	23.8	21.0	17.5
Taiex excl. TSMC	15.8	19.0	28.4	20.1	20.0	16.6
Tech	35.4	31.6	39.9	30.2	22.3	18.3
Tech excl. TSMC	22.9	26.7	35.2	28.1	22.1	17.7
TSMC	63.0	37.0	44.8	32.0	22.5	18.9

Source: Compiled & estimated by KGI Research

Figure 7: The Taiex index is now valued at 18x one-year forward PE, well above the long-term average of 15x PE



Source: TEJ; compiled & estimated by KGI Research

Figure 8: Taiex index & corresponding valuations

12M forward PE	Equivalent index level (points)	2026F PE	Equivalent index level (points)
15x	22,414	15x	23,880
16X	25,403	16X	25,472
20x	29,885	20x	31,840
21X	31,380	21X	33,432
22X	32,874	22X	35,024
23X	34,368	23X	36,616
24X	35,863	24X	38,208

Source: TEJ; compiled & estimated by KGI Research

Figure 9: Our top picks

Company	Code	Investment rating	Target price (NT$)	Mkt cap (US$mn)	Share price (NT$)	Change +/- (%)	EPS (NT$)		P/B (x)		PE (x)		P/B (x)		P/B (x)		ROE (%)		Cash yield (%)	
							2025F	2026F	2025F	2026F	2025F	2026F	2025F	2026F	2025F	2026F	2025F	2026F	2025F	2026F
TSMC	2330 TT	Outperform	1900.0	1,200,197	1450.0	31.0	64.58	76.89	42.7	19.1	22.5	18.9	0.5	1.0	7.2	5.6	35.3	33.6	1.4	1.4
Alchip	3661 TT	Outperform	5380.0	8,206	3170.0	69.7	66.40	134.46	(16.7)	102.7	47.7	23.6	(2.9)	0.2	7.2	5.8	14.3	27.3	1.0	2.1
MPI	6223 TT	Outperform	2430.0	7,374	2370.0	2.5	33.29	62.08	36.3	86.5	71.2	38.2	1.8	0.4	24.5	20.0	34.0	57.7	0.8	1.6
Kinik	1560 TT	Outperform	390.0	1,771	377.0	3.4	8.64	13.02	22.2	50.7	43.6	29.0	1.7	0.5	7.0	5.9	16.9	22.3	0.9	1.3
Aspeed	5274 TT	Outperform	6890.0	8,199	6795.0	1.4	99.25	137.82	45.9	38.9	68.5	49.3	1.4	1.2	34.8	26.4	57.6	60.8	1.1	1.5
WEC	2344 TT	Outperform	100.0	10,212	71.1	40.6	1.00	10.38	650.8	941.9	71.3	6.8	0.1	0.0	3.3	2.2	4.8	39.2	0.0	4.4
Hon Hai	2317 TT	Outperform	340.0	98,989	221.5	53.5	14.68	18.90	33.6	28.8	15.1	11.7	0.5	0.4	1.8	1.6	12.0	14.6	3.5	4.5
QCI	2382 TT	Outperform	385.0	35,137	285.0	35.1	18.07	21.41	16.7	18.5	15.8	13.3	1.0	0.7	4.7	4.4	30.4	33.8	5.1	6.0
Wistron	3231 TT	Outperform	220.0	14,364	141.5	55.5	9.21	13.34	59.9	49.3	15.4	10.6	0.3	0.4	2.3	2.0	17.9	21.8	4.1	6.1
Wiwynn	6669 TT	Outperform	6300.0	25,447	4290.0	46.9	281.86	323.98	130.0	14.9	15.2	13.2	0.1	1.7	7.1	5.7	52.4	48.0	3.6	4.2
AVC	3017 TT	Outperform	1800.0	17,273	1380.0	30.4	50.01	75.00	138.3	50.3	27.6	18.4	0.2	0.4	13.9	10.1	57.7	63.7	1.8	2.7
Fositek	6805 TT	Outperform	1905.0	3,392	1550.0	22.9	31.74	63.47	77.3	100.0	48.8	24.4	0.7	0.3	16.0	12.1	35.7	56.3	1.0	2.0
DELTA	2308 TT	Outperform	1280.0	76,442	922.0	38.8	23.83	32.79	75.7	37.6	38.7	28.1	0.6	0.8	9.2	7.6	25.3	29.7	1.3	1.8
BHI (Bizlink)	3665 TT	Outperform	1830.0	9,179	1475.0	24.1	46.66	65.97	105.2	42.5	31.6	22.4	0.3	0.5	6.8	5.7	23.0	27.7	1.6	2.2
EMC	2383 TT	Outperform	1425.0	18,356	1605.0	(11.2)	42.22	64.74	57.6	53.3	38.0	24.8	0.6	0.4	11.9	9.1	36.8	42.9	1.6	2.4
TUC	6274 TT	Outperform	530.0	3,999	434.0	22.1	12.36	21.54	34.1	74.3	35.1	20.1	1.0	0.3	7.1	5.8	22.3	32.3	1.7	3.0
N.P.C	8046 TT	Outperform	330.0	5,486	266.0	24.1	2.71	11.79	760.1	334.7	98.1	22.6	0.1	0.1	3.8	3.3	3.9	15.8	0.6	2.7
Accton	2345 TT	Outperform	1400.0	21,671	1210.0	15.7	46.08	55.83	114.9	21.5	26.3	21.7	0.2	0.8	14.4	11.4	61.9	58.7	2.2	2.7

Source: Compiled & estimated by KGI Research

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