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Artificial intelligence vs natural greed

Perception, misconception, and the hidden fragilities of the AI hardware cycle.

A thinkpiece, without getting too technical.

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ABSTRACT

"Every bubble rests on a misconception, and no misconception lasts forever."

- George Soros

Every market puts a price on something. It might be a sack of apples, a day's catch of fish, a hand tool, or a financial instrument that stands in for almost anything you can name. Whatever changes hands, the people doing the trading are placing a bet, and the price they settle on is really a statement about the future: how badly they want what will come, or how much they fear it, this quarter or ten years out.

For about a century now, technology has been where that future gets priced hardest. Each of its waves has landed with more force than the previous one and has then reshaped more of the economy, and the urge of market participants to own a piece of it today has grown right alongside. The trouble is always timing. Investors tend to be right that the technology will matter and wrong about how long it will take to really matter, so they price today the cash flows, wealth generation and overall impact that will materialise later.

This paper highlights the fragilities underneath the current mania, artificial intelligence, and how its main players are interconnected. Four economies sit at the centre: the United States, South Korea, Japan and Taiwan.

The United States produces more energy than any other country, takes the largest share of the world's investment flows, and prints the currency everyone else settles in. The other three sit in a much less comfortable situation: they import almost all their energy, their currencies are sliding, they are importing inflation they can ill afford, and they are where the money chasing AI has crowded in hardest. The boom is manufactured in South Korea, Japan and Taiwan; but the capital that fuels those markets comes mainly from abroad, and so does the demand for the hardware they produce. All of these are vulnerabilities.

A note on market data. All data in this paper - prices, performance figures and macro series alike - are taken as of 30 June 2026, the close of the first half, and are indicative rather than daily-updated: in names this volatile, the tape moves faster than any print date. Sources are cited under each figure.[1]

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01 The anatomy of technological bubbles

George Soros described how a bubble actually works better than most people have. Every bubble, he said, rests on two things at the same time: a real trend out in the world, and a mistaken idea about that trend. The boom catches fire when the two start feeding off each other. That is the part to hold onto. A bubble is hardly ever a story about fake technology. It is usually a real technology, carried along by a self-reinforcing misjudgement of how far it will go but, above all, how fast it will. What market participants get wrong is not the destination but the length of the journey: the rate at which they discount time, and the

easy assumption that the future shows up sooner, and lands more neatly in the laps of today's leaders, than it ever does.[2]

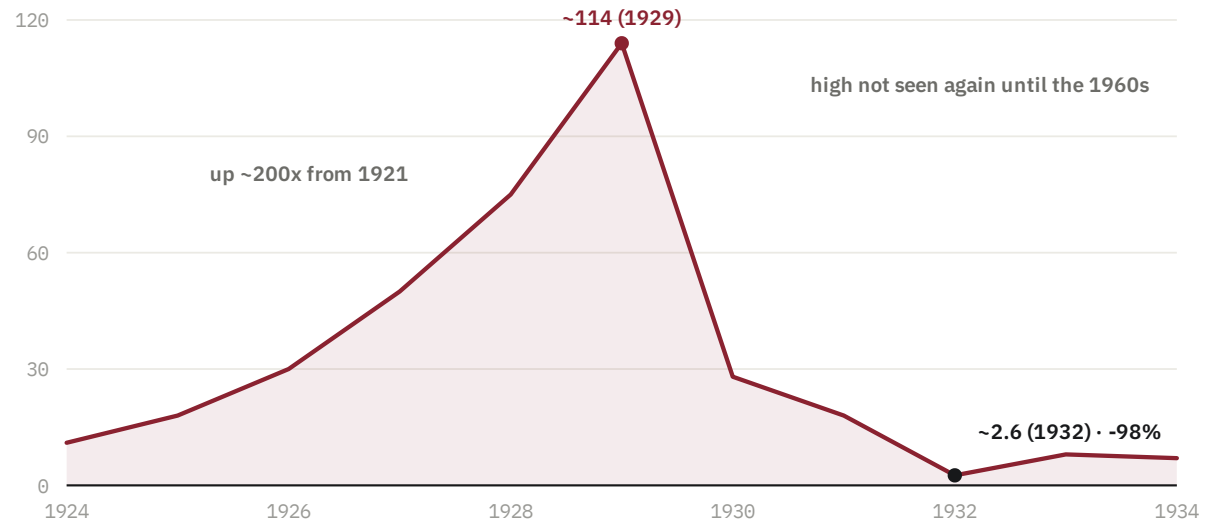
Three other writers fill in the picture: Carlota Perez splits each technological revolution into an installation phase, financed by speculative money and ending in a frenzy, and a deployment phase later on, when the thing finally spreads through the real economy; the crash sits between the two.[3] Roy Amara said much the same from the investor's chair: we overrate a technology's impact early and underrate it later.[4] Finally, Soros gave the mechanism; Robert Shiller provided the evidence, showing that these episodes run on stories and feedbacks rather than fundamentals, and that price and value can stay apart far longer than seems reasonable.[5]

The mechanism is general; the episodes are specific. By our count we are now in at least the fifth of them in a hundred years: radio, television, the internet, blockchain and now artificial intelligence. The first one set the pattern, and it set it cleanly; the others repeated it.

Start with the Radio Corporation of America. Radio was the breakthrough technological advancement of the 1920s, and RCA was the purest way to own it, the way buying "the internet" meant something in 1995, or "AI" does now. The stock ran up as much as 200-fold on some measures into its 1929 high, lost about 98% of its value by 1932, and did not see that high again until the 1960s.[6] None of that was because the technology was weak or fake. The technology was real and so was the stock price. The timing was the problem.

FIGURE 1

RCA, 1924-1934: the archetypal mania - recognition, frenzy, collapse, and a lost decade.



Split-adjusted share price, indicative monthly path reconstructed from documented peak and trough levels.

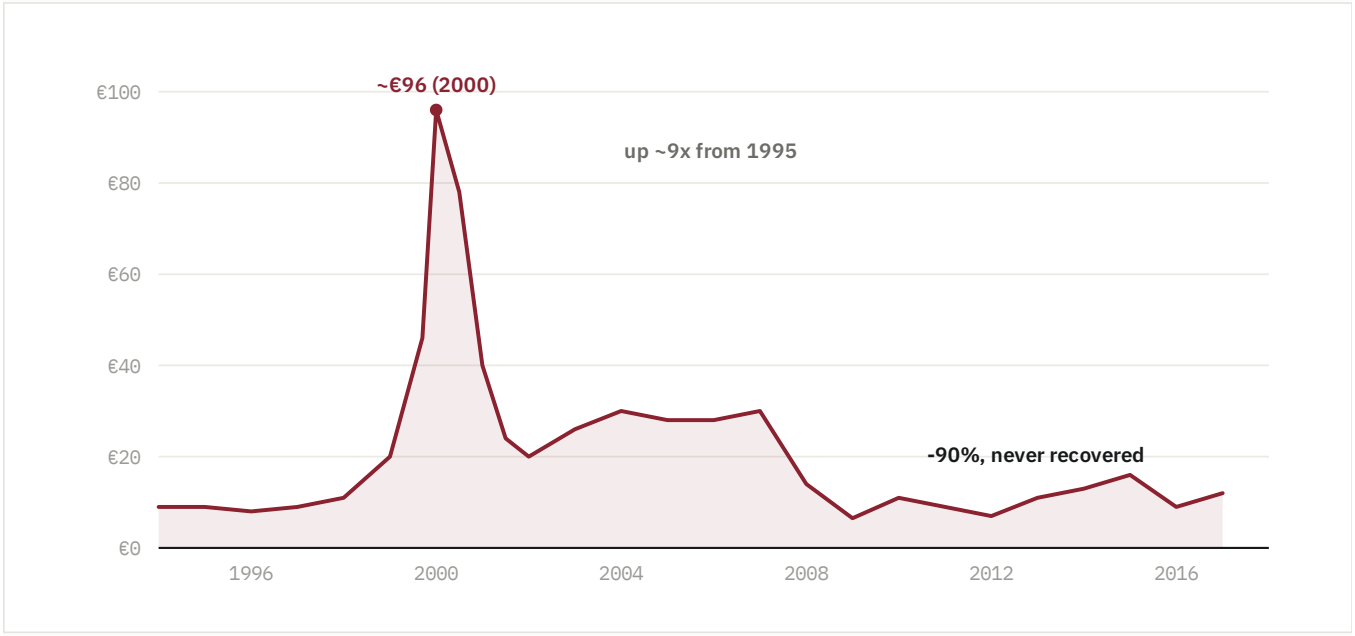
Source: Author's reconstruction from contemporaneous price records; Galbraith (1997). Recovery date per long-run index history.

This pattern is not a one-off. It turns up at every technological shift, and the size of the fall is strikingly similar each time, as the enthusiasm widens out from the one famous "story" stock to the whole supply chain and then gives way. Three later manias make the point that the decade and the industry barely matter. The shape of the pattern does.

Television was the defining medium of an earlier generation, and Europe's listed broadcasters ran the very same course around 2000. France's TF1 and M6, along with the group now called MediaForEurope, each climbed 8- to 10-fold into 2000 and then dropped 80 to 90%. This time the difference is brutal: they never came back. Broadcast television was not just overpriced; it was overtaken, first by the internet and then by streaming. Those shares subsequently stayed down because the business beneath them lost its place, not simply because a bubble had burst. It is the clearest reminder that a genuine trend can still be the wrong horse to back for the long run. "The timing was wrong" is the kinder verdict. Sometimes the horse is wrong too.

FIGURE 2

TF1 (Télévision Française 1), 1994-2017.



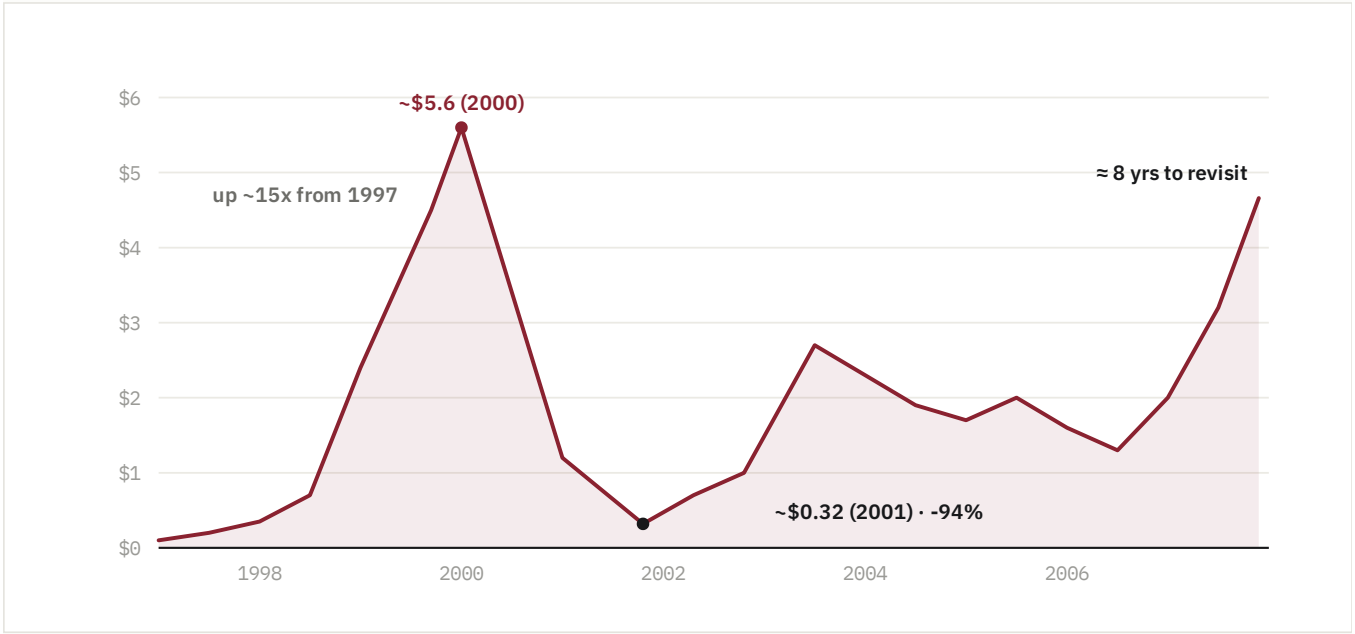
Peak near €96 in 2000; a structural de-rating followed and the price has traded a fraction of that level ever since.

Source: TradingView / Euronext Paris monthly data; chart rebuilt by the author.

The internet ran the same arc a few years on, with one difference: this time the technology itself lasted.

FIGURE 3

Amazon, 1997-2007: a real winner, mispriced in time.



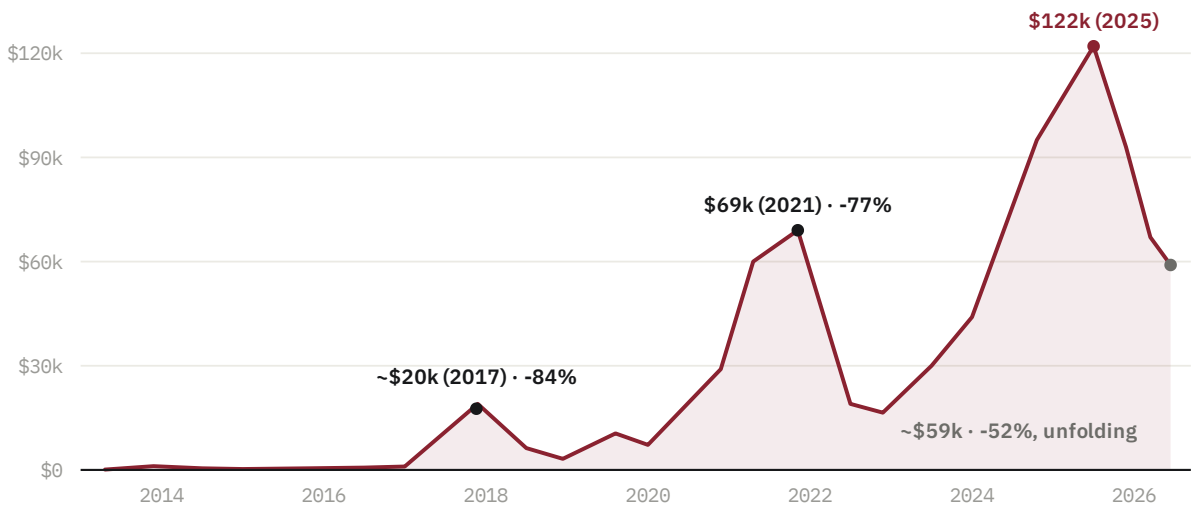
The internet boom produced the same shape in a company that genuinely went on to remake global commerce. Amazon rose roughly 15-fold into 2000, fell about 94% by late 2001, and did not durably revisit its bubble-era high for the better part of a decade - the business compounded throughout; the price had to catch back up to where exuberance had already placed it.

Source: Investing.com / TradingView (NASDAQ), split-adjusted monthly; chart rebuilt by the author.

Blockchain took the cycle, sped it up and ran it again and again. Bitcoin has fallen around 80% three separate times in a decade after parabolic advances, each drop starting from a higher level, and as of mid-2026 it sits about 52% below its 2025 high. You can think what you like about the asset; the price pattern is the one we keep seeing.

FIGURE 4

Bitcoin, 2013-2026: the cycle on repeat.



Two complete cycles tell the story: down about 84% into 2018 and about 77% into 2022, each collapse from a higher base (a third, in 2014, is too small to register on a linear scale), each following a stock of expectations the network could not yet redeem. The current leg, about 52% below the 2025 high, is shown for completeness; whether it becomes another full cycle is still being argued.

Source: CoinDesk / Fortune / Yahoo Finance, June 2026; chart rebuilt by the author.

TABLE 1 - SELECTED TECHNOLOGY MANIAS: RISE, FALL, AND TIME TO FORGIVE

EPISODE	TECHNOLOGY	BEGINNING TO TOP		TOP TO BOTTOM		TIME TO RECLAIM PEAK
		MULTIPLE	DAYS	DRAWDOWN	DAYS	
RCA (1921-32)	Radio	~200x	~2,900	~ -98%	~1,000	~30+ years
TF1 / M6 (2000-02)	Television	~9x	~1,900	~ -80-90%	~900	Never reclaimed
Amazon (2000-01)	Internet	~15x	~950	~ -94%	~640	~8 years
Nasdaq Composite (2000-02)	Internet	~5x	~1,900	~ -78%	~930	~15 years
Bitcoin (recurring)	Blockchain	~20x	~1,060	~ -84% / -77%	~370 / 375	1-3 yrs per cycle

Figures are approximate, drawn from index and price histories; days are calendar days; Bitcoin columns refer to the 2015-17 rise and the completed 2018 and 2022 unwinds.[7]

Read the last column of the table again, because it splits these episodes in two. The technologies that were overtaken never saw their highs again - broadcast television - and radio needed a generation. The technologies that stayed the frontier all recovered: the internet in a decade or so, Bitcoin in a couple of years, each cycle faster than the last. In those cases what snapped was the discounting, not the technology or the revenues that eventually arrived. We expect AI to sit on that second track, and it is worth saying so now, before any break: this paper is an argument about price and timing, not against the technology.

1.1 - Why the clock runs slow: adoption, resistance, and the productivity lag

If the asset price gets out ahead of the cash flows, the obvious question is what is holding the cash flows up. The answer is usually not that the technology disappointed. It is that two forces, both well documented, sit between an invention and its payoff, and market participants keep mispricing both.

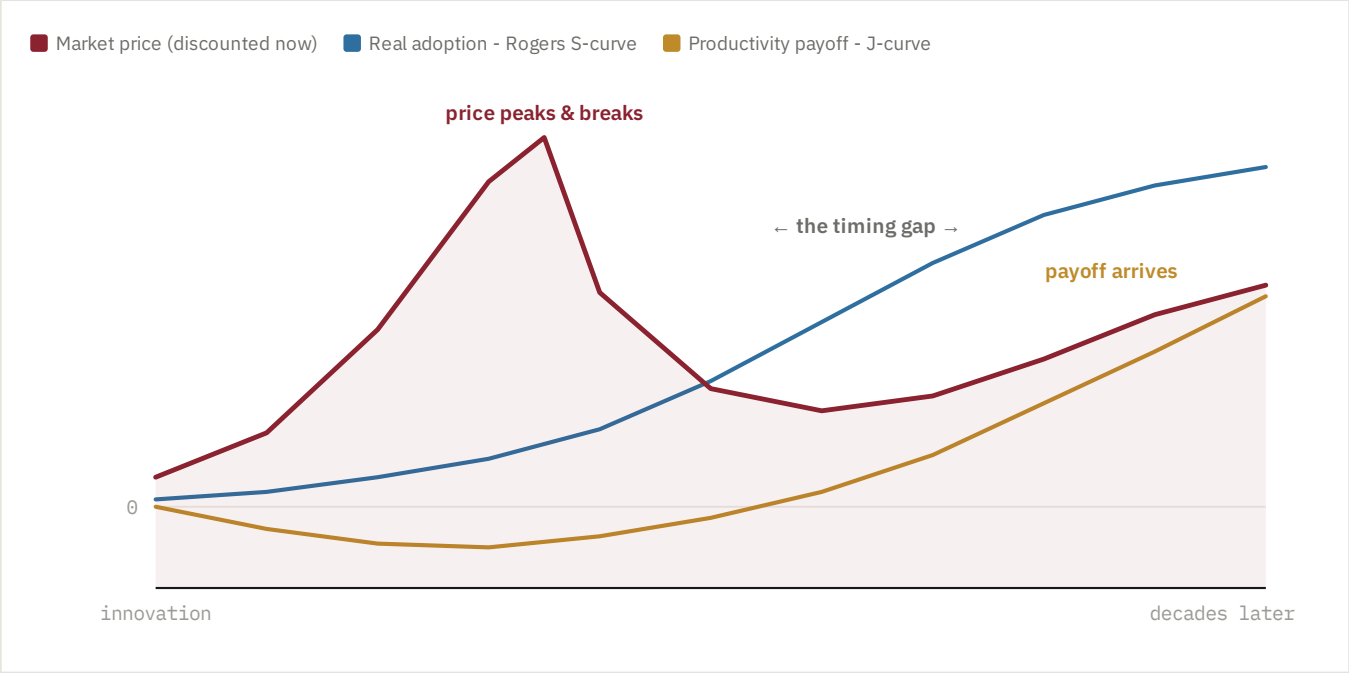
The first is plain human and organisational reluctance. New things never get adopted all at once. Everett Rogers mapped this as an S-curve, running from a venturesome handful through an early and then a late majority and ending in the laggards, who switch only when they have no choice left.[8] Resistance, here, is not some defect to be engineered away. Ram and Sheth, in their

work on innovation resistance, showed it to be a normal reflex, and one that gets stronger the more an innovation breaks with what came before.[9] Calestous Juma, looking back over six centuries of fights about new technology, found something underneath simple inertia: people push back hardest when the rewards look as though they will go to a few while the risks are shared out among many (AI creating mass unemployment, say, while making a few super-rich).[10] As the next chapter argues, that sense of an uneven bargain has a precise financial counterpart in this cycle.

The second force is the slow burn of a general-purpose technology. Even once it is adopted, the productivity payoff shows up late, because the gains depend on rebuilding everything around it. Electrification is the textbook case. Paul David showed that factory output barely registered a productivity gain for almost 30 years after electric motors replaced steam, and only improved once the floor plans, the work flows and the skills had all been redrawn around electric power.[11] Brynjolfsson, Rock and Syverson carried the same idea over to AI and gave it a name, the productivity J-curve: the redesign, the retraining and the new business models (and, we would add, the infrastructure - power plants, for instance) that a general-purpose technology demands are real costs that market participants routinely ignore, so measured productivity dips before it climbs, and the full effect can be 20 or 30 years in coming.[12]

FIGURE 5

What the literature describes: the asset price runs ahead while adoption and payoff lag.



Schematic. The market discounts the destination almost at once; real adoption follows a slower S-curve (Rogers), and the productivity payoff arrives later still - dipping before it rises (the J-curve of Brynjolfsson, Rock & Syverson). The horizontal distance between the price peak and the payoff is, in plain terms, “the time was wrong.”

Source: Author's schematic, after Rogers (1962), David (1990) and Brynjolfsson, Rock & Syverson (2021).

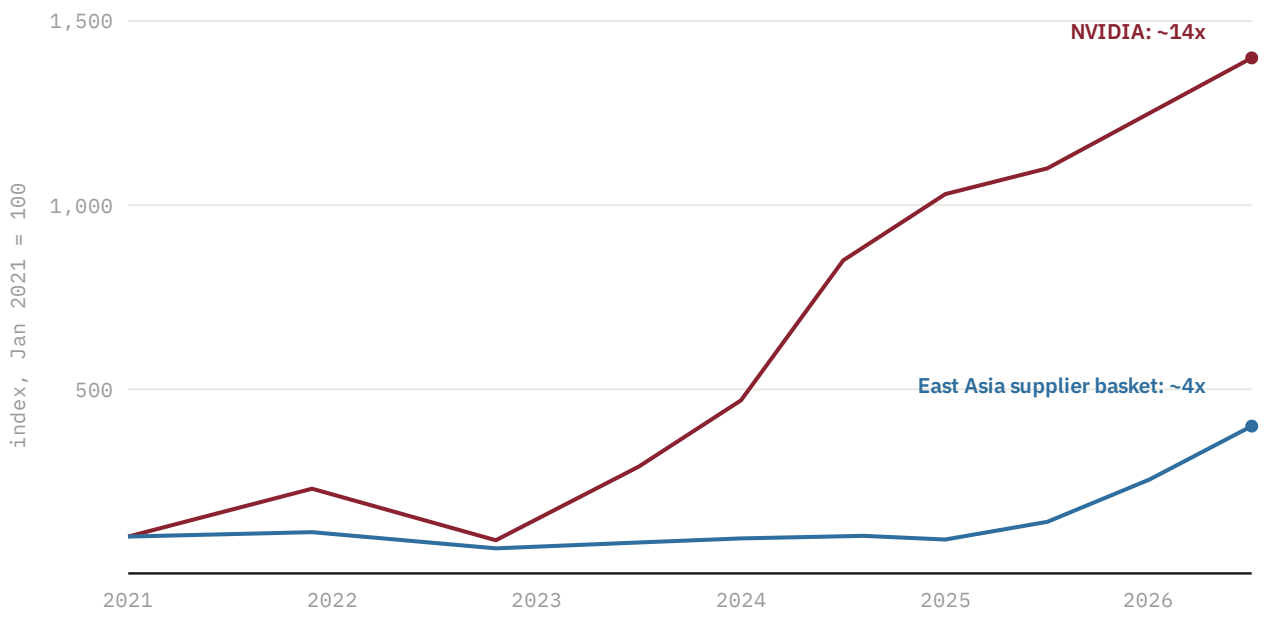
Put together, this is the evidence behind the timing problem. People are sure of where a technology ends up, but the road there is long, contested and expensive upfront. A market that prices the endpoint as if the road were short is not misjudging the technology. It is misjudging the clock. That, in the words of the people who have actually measured it, is the discounting error.

1.2 - And today: the same curve, in AI hardware

That brings us up to now. The sharpest version of the AI cycle's discounting is the hardware that physically builds it. NVIDIA has gone up roughly 14 times in 5 years, and the wider set of AI-hardware names across memory, foundry and equipment 3 to 5 times, with most of that move squeezed into the last 18 months. The same thing that ran through radio, television, the internet and blockchain is now running through the physical layer of AI.

FIGURE 6

The current analog: NVIDIA and the AI-hardware complex, rebased (2021 = 100).



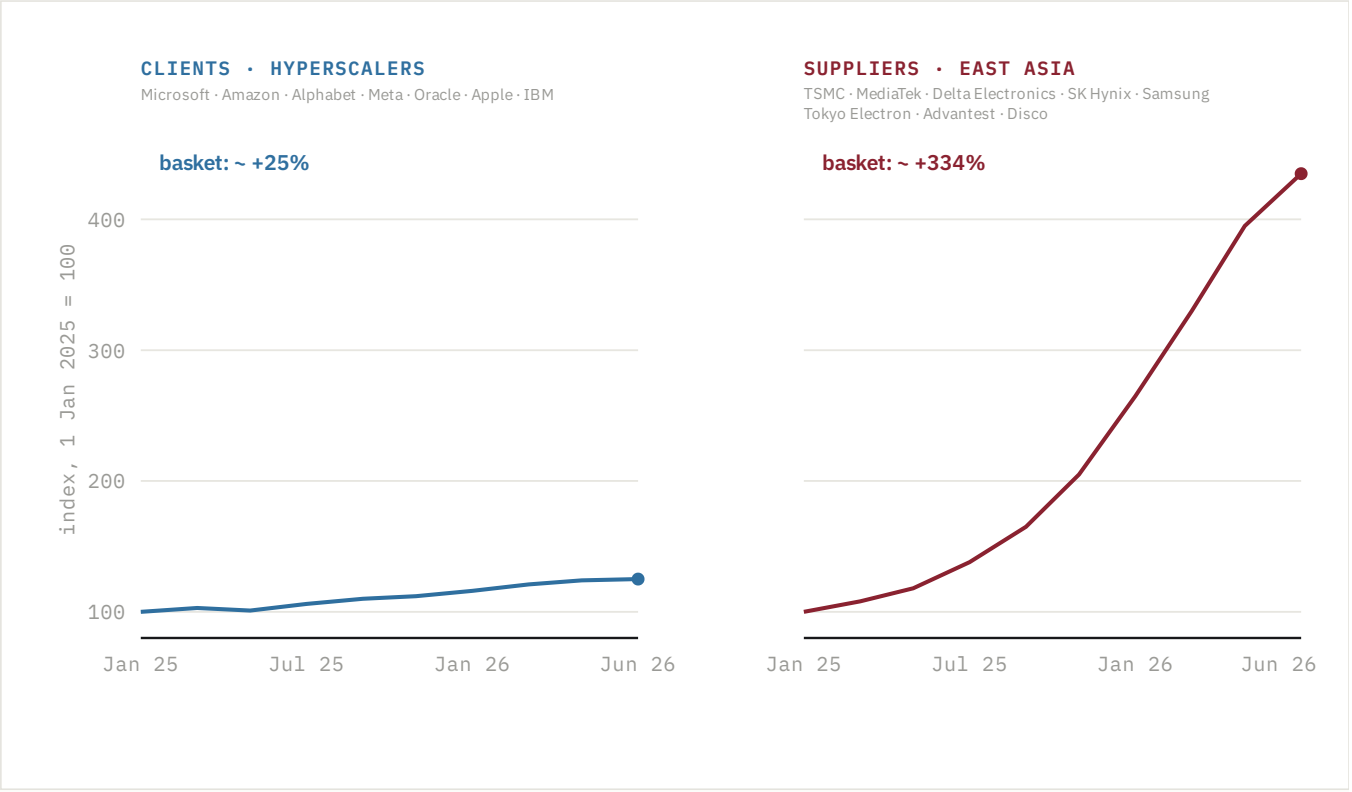
NVIDIA against the East Asian supplier basket - the same eight names as Figure 7 and Table 2 (TSMC, MediaTek, Delta Electronics, SK Hynix, Samsung Electronics, Tokyo Electron, Advantest, Disco), equal-weighted, rebased to 100 at January 2021. NVIDIA is up roughly 14 times in 5 years; the basket about 4 times, with most of its move squeezed into the last 18 months. The US names Micron and AMD are deliberately excluded: the subject of this paper is the East Asian leg of the trade.

Source: TradingView, monthly closes to 30 June 2026; rebased and rebuilt by the author; indicative.

The rest of this note is about why that resemblance matters more this time. Not because the technology is any less real, but because of where the hardware is made: Japan, South Korea and Taiwan. Before carrying the point forward, look at the trade from both ends. The clients spend; the suppliers book that spending as revenue; and on both legs the money is overwhelmingly American.

FIGURE 7

Clients vs suppliers: one trade, two legs.



Clients versus suppliers through the parabolic phase: 1 January 2025 to 30 June 2026, both panels on the same scale, rebased to 100. Equal-weighted, the client basket added about 25% while the supplier basket added about 334%; the name-by-name numbers are in Table 2 below, and one of them - SK Hynix, up almost 1,200% - explains most of the gap on its own. The market is paying the suppliers, in advance, for the clients' spending plans. This is a narrower, East-Asia-only supplier basket than the AI-hardware basket of Figure 6; the two are not directly comparable.

Source: TradingView, daily closes, 30 June 2026; local-currency price returns; equal-weighted baskets, rebased and rebuilt by the author.

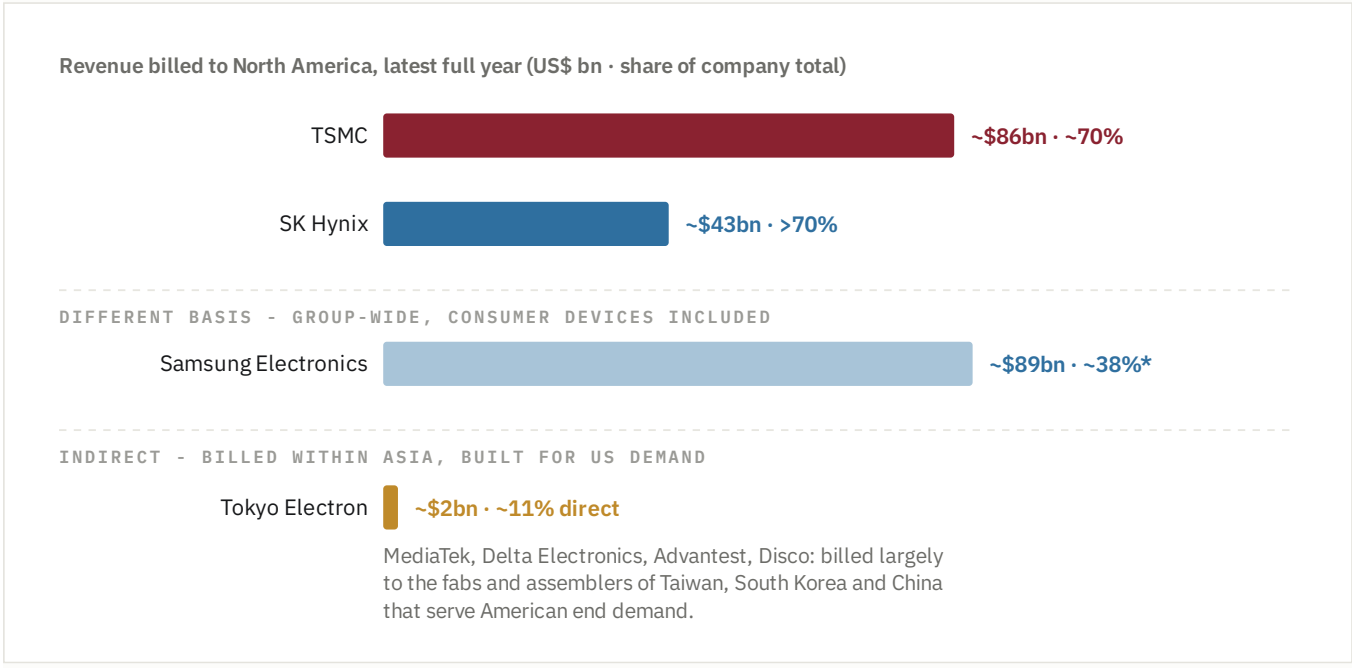
TABLE 2 - THE TWO BASKETS, NAME BY NAME: PRICE RETURN, 1 JAN 2025 - 30 JUN 2026

CLIENTS · HYPERSCALERS	RETURN	SUPPLIERS · EAST ASIA	RETURN
Amazon	+50%	TSMC	+75%
Alphabet	+90%	MediaTek	+150%
Apple	+25%	Delta Electronics	+340%
Meta	+1.5%	SK Hynix	+1,185%
Oracle	-15%	Samsung Electronics	+463%
IBM	+35%	Tokyo Electron	+185%
Microsoft	-9%	Advantest	+210%
		Disco	+65%
Equal-weighted basket	**~ +25%**	**Equal-weighted basket**	**~ +334%**

Local-currency price returns, fixed at 30 June 2026. Source: TradingView; author's data.

FIGURE 8

The one true customer.



TSMC: FY2025 revenue of US$122.4bn, North America ~70% (FY2024 disclosed share). SK Hynix: North America above 70% of sales through Q3 2025 (KRW 45.2tn in 9 months). *Samsung is group-wide, consumer devices included, so ~38% understates the memory division's US tilt. Tokyo Electron bills more to China than to America; like MediaTek, Delta Electronics, Advantest and Disco, its US exposure arrives through the fabs of Taiwan and South Korea. Direct or routed through the supply chain, the end customer is the same: the United States.

Sources: TSMC 4Q25 results (SEC filing); Leaders Index via ETNews / TrendForce, 9M 2025; company disclosures. Approximate.

Carry two conclusions forward. The first is that a real technology does not protect the share price: the internet did change the world, and the Nasdaq still lost nearly 80% of its value. The second is that the infrastructure usually outlives the equity. The dark fibre and the data centres laid down in 1999 went on to carry the internet of the 2010s, long after the money that paid for them had been wiped out. That split between the asset and its price is the best guide we have to where this cycle is likely to give way, and we come back to it.

02 The fragile core: AI hardware and East Asia

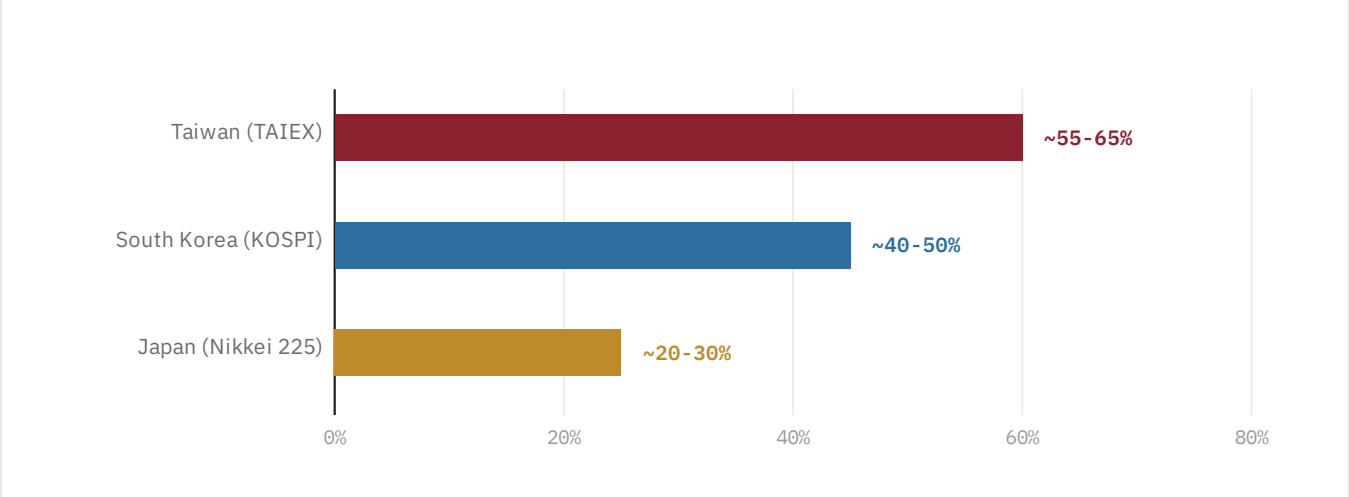
What sets this cycle apart is not the valuation maths. It is the geography. The physical side of the AI boom does not sit only on Silicon Valley balance sheets. It runs through three economies that actually make the hardware: **Taiwan**, in logic and advanced foundry, led by TSMC, with MediaTek and Delta Electronics alongside; **South Korea**, in memory and high-bandwidth memory, through Samsung and SK Hynix; and **Japan**, the picks-and-shovels supplier of equipment and materials, with names like Tokyo Electron, Advantest, Disco and Shin-Etsu.

2.1 - Index concentration: the benchmark has become the trade

The first vulnerability is that each of these national stock indices has turned, to one degree or another, into a single bet on AI. In Taiwan, TSMC on its own equals more than 40% of the TAIEX and over half of the MSCI Taiwan index, and the rest of the chip ecosystem lifts the AI-linked share higher again.[13] In South Korea, Samsung Electronics and SK Hynix between them hit a record above 42% of the KOSPI.[14] Japan is the broadest of the three, with real but more scattered exposure further up the chain. Overall, it is our view that such high levels of capital concentration are never a sign of health but a serious vulnerability.

FIGURE 9

Approximate weight of AI-supply-chain companies in each national index (mid-2026).



"AI supply chain" = foundry, memory/HBM, equipment, and materials. Single-name anchors: TSMC ~41% of TAIEX; Samsung + SK Hynix ~42% of KOSPI. Japan's range is an estimate based on equipment/materials leaders.

Source: TWSE; Korea Exchange; UOB and Manulife estimates as reported by CNBC (2026); DoubleLine (2025). Ranges approximate.

2.2 - Energy: the world's most import-dependent large economies

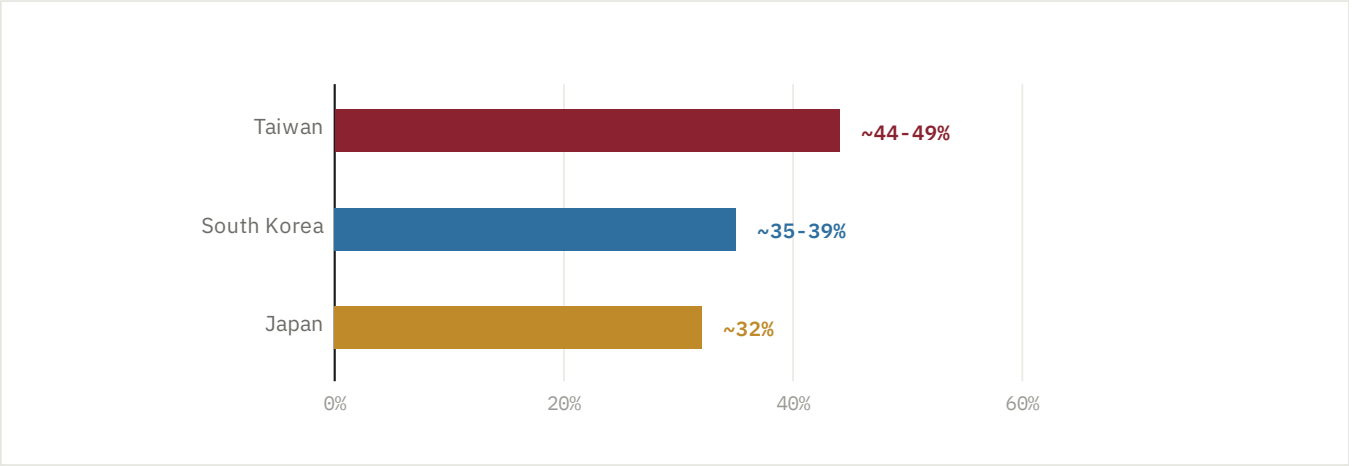
The second vulnerability is energy. All three import close to 100% of their oil and gas and rank among the biggest LNG buyers anywhere. Japan's energy self-sufficiency runs around 12 to 13%; South Korea brings in the great majority of its primary energy; Taiwan leans almost entirely on imported gas and keeps only a few weeks of it in storage.[15] Because energy is billed in US dollars, a weakening currency does more than lifting the price at the pump: it imports structural inflation into economies that are already indebted in one form or another - the state in Japan, households in South Korea and Taiwan - with limited fiscal and monetary room to cushion it, so the pressure compounds. An energy shock therefore lands on these three harder than on almost any other advanced economy, and it can arrive in several forms at once: a softer currency, higher inflation, higher rates, or a mix of them - hitting companies, local savers and foreign investors in different ways.

2.3 - Foreign ownership: the marginal price-setter is global capital

The third vulnerability is ownership. Foreigners hold around 44 to 49% of the Taiwanese market, edging toward half in 2026, roughly 35 to 39% of the South Korean market, a record, and about 32% of Japan's.[16] In all three, the stock price is set at the margin by global capital, and that capital is parked in exactly the chip names that dominate the indices: foreigners own about three-quarters of TSMC and roughly half of Samsung Electronics and SK Hynix.[17]

FIGURE 10

Foreign ownership as a share of national equity-market capitalisation.



Share of total market value held by non-resident investors. Figures vary by source and measure (main board vs. whole market); the ranking Taiwan > South Korea > Japan is robust.

Source: TWSE (2024-26); Financial Supervisory Service / Korea Exchange (2025-26); Tokyo Stock Exchange shareownership survey.

2.4 - The decisive number: holdings exceed reserves

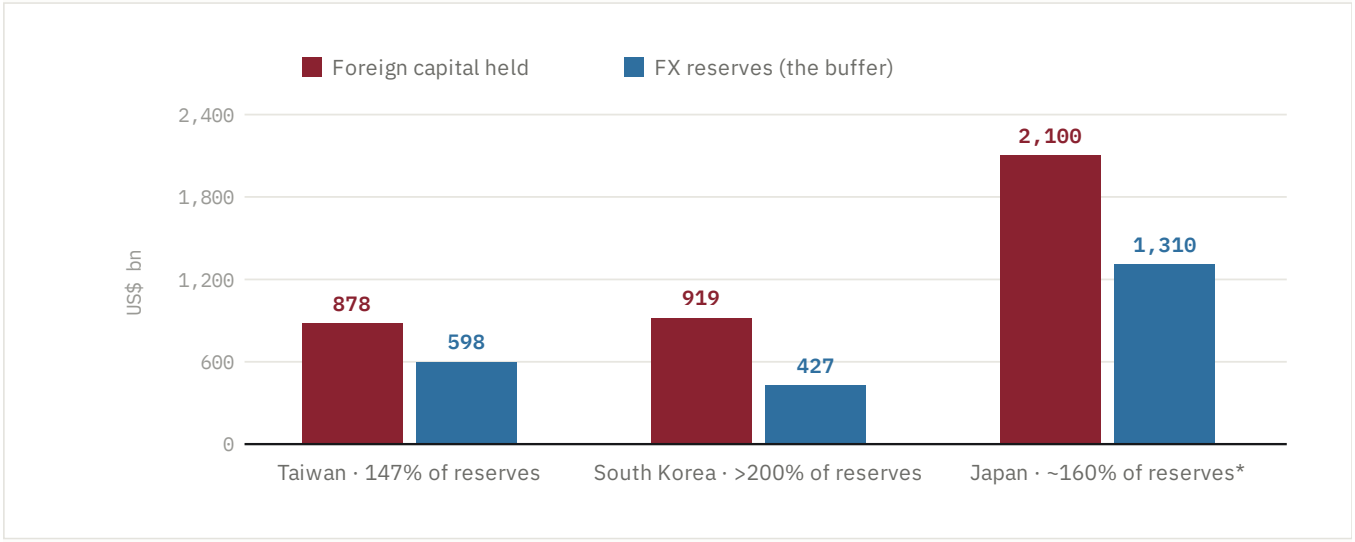
Put the three together and one number decides the rest: what foreign investors hold in these markets now exceeds what the central banks hold in reserve. By the middle of 2025, foreign holdings of Taiwanese stocks, bonds and deposits came to about US$877.7bn, roughly 147% of the central bank's reserves. In South Korea, foreign-held listed equities on their own (around US$919bn) are more than double the reserves (about US$427bn).[18]

And Japan? At first glance it escapes: reserves of about US$1.3tn are the deepest of the three. But foreign investors hold roughly a third of the Tokyo market, some US$2tn at current capitalisation, so even here the float outweighs the shield.

What differs is the direction of travel, and here the mechanism deserves to be spelled out in full, because it is not a linear, two-variable story: several forces feed each other, each with its own lag. Japan is one of the world's largest net creditors. Years of practically nonexistent inflation and low interest rates led the Japanese, and everyone else, to borrow in yen - a rather stable currency, at cheap rates - and invest wherever yields were higher to profit from the spread: this was called the yen carry trade. But in recent years rising interest rates in Japan have begun to reverse this course; the highly indebted Japanese economy suffers under higher rates, and the yen has devalued consistently, down about 36% against the US dollar since 2021. As the yen keeps sliding, Japan imports more inflation, which requires higher interest rates to curb it, which on one hand temporarily appreciates the yen but on the other impairs domestic economic activity, which then depreciates the yen further - and the cycle goes on and on, as those who borrowed at near-zero rates sell their foreign assets to repay yen loans that are no longer cheap. Overall, the Japanese, watching their currency slide quarter after quarter, move more and more into hard assets, especially abroad, in currencies now more stable than the yen - which puts further downside pressure on it, cornering the Bank of Japan into raising rates to curb the inflation that damages a highly indebted government and the economy at large. Although the dynamic has moderated a little in recent years, with the Bank of Japan raising rates to 1%, the interest-rate differential with other currencies remains notable and still incentivises the carry trade - forcing the Bank of Japan to spend reserves propping up the yen, at least temporarily. Until, eventually, something goes wrong.

FIGURE 11

Foreign capital held vs. FX reserves - the buffer is smaller than the potential outflow.



Taiwan: foreign holdings of equities, bonds and deposits (mid-2025). South Korea: foreign-held listed equities only (end-2025). *Japan: foreign-held listed equities of roughly US$2.1tn (~32% of Tokyo market capitalisation, author's estimate) against reserves of US$1.31tn (May 2026). In all three the float exceeds the buffer; in Japan alone the stress flow runs the other way, because a net creditor's money comes home.

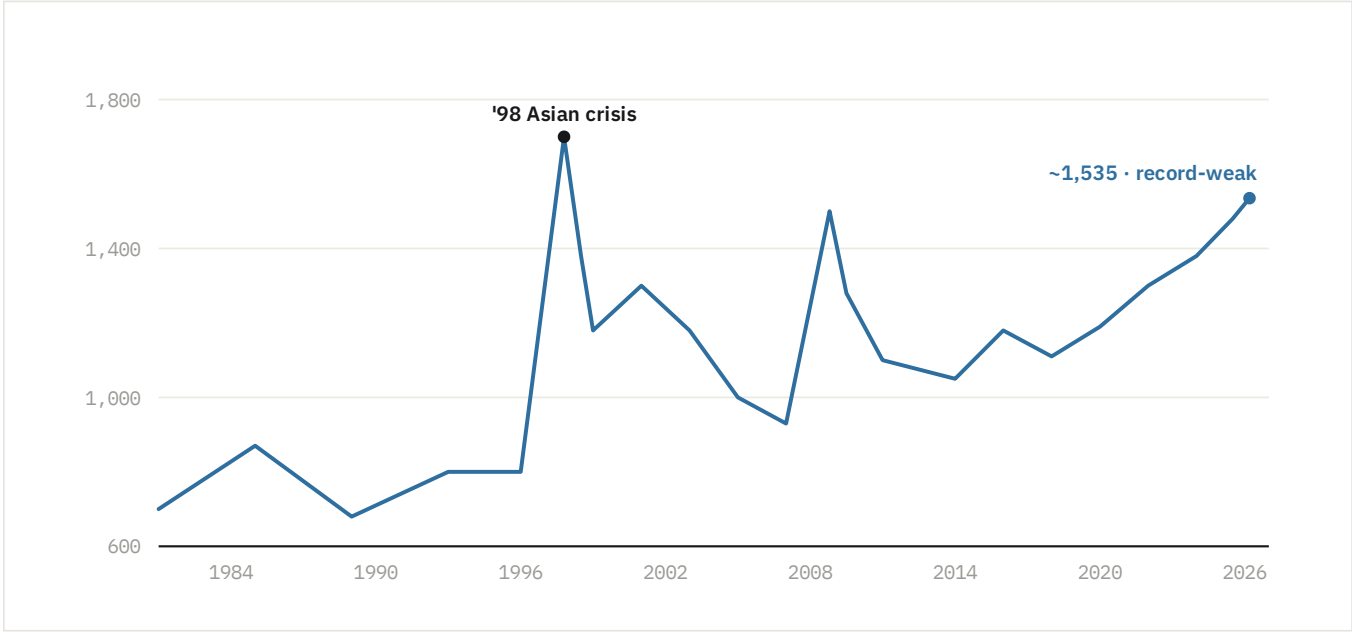
Source: Central Bank of the Republic of China (Taiwan); Financial Supervisory Service (South Korea); Japan Ministry of Finance; author's calculations.

2.5 - The macro picture: weak currencies, rising rates, vertical equities

None of this is theory. It is on the charts. Two things repeat across South Korea and Japan. On one side, a currency that keeps weakening and long-term yields that keep rising. On the other, an almost vertical equity melt-up led by the chip names. A sinking currency, a climbing cost of capital and a parabolic index are exactly the mix that can turn a structural macro strain into an abrupt change of market regime.

FIGURE 12

USD/KRW, 1981-2026: a won at its weakest in a generation.

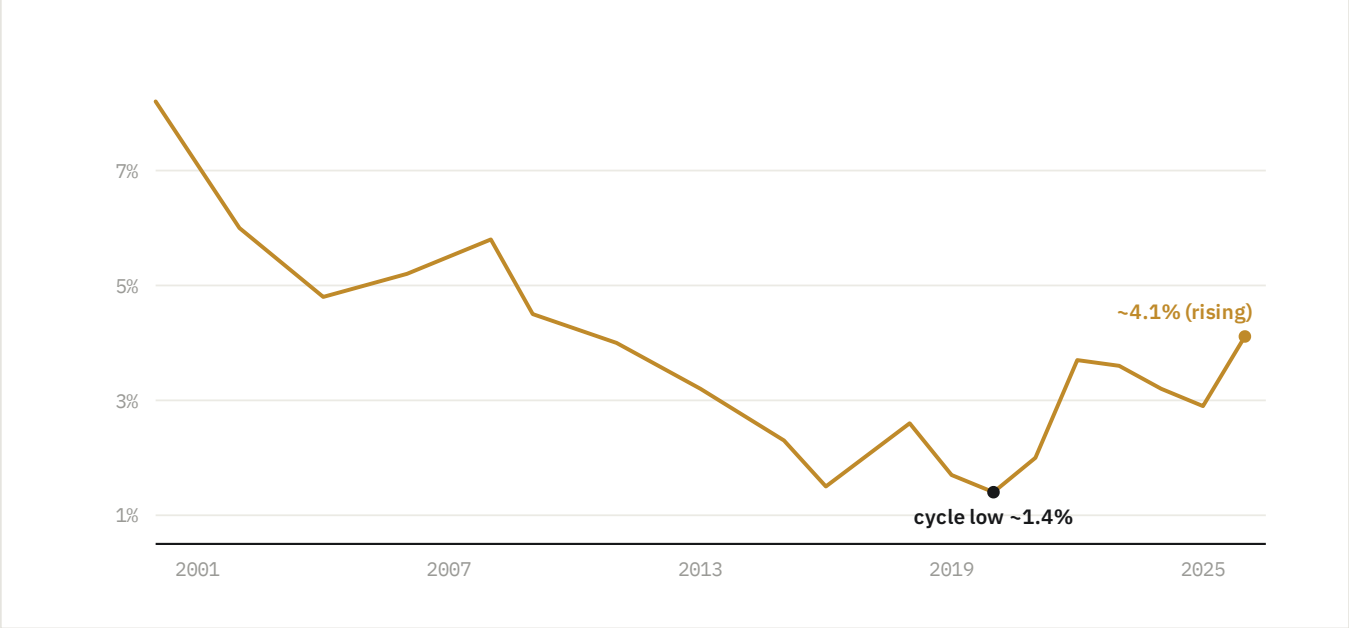


Crisis spikes in 1998 and 2008, and a sustained climb to ~1,535 per dollar by 2026 - among the weakest readings on record.

Source: TradingView (ICE / TVC), quarterly; chart rebuilt by the author.

FIGURE 13

South Korea 10-year government bond yield.

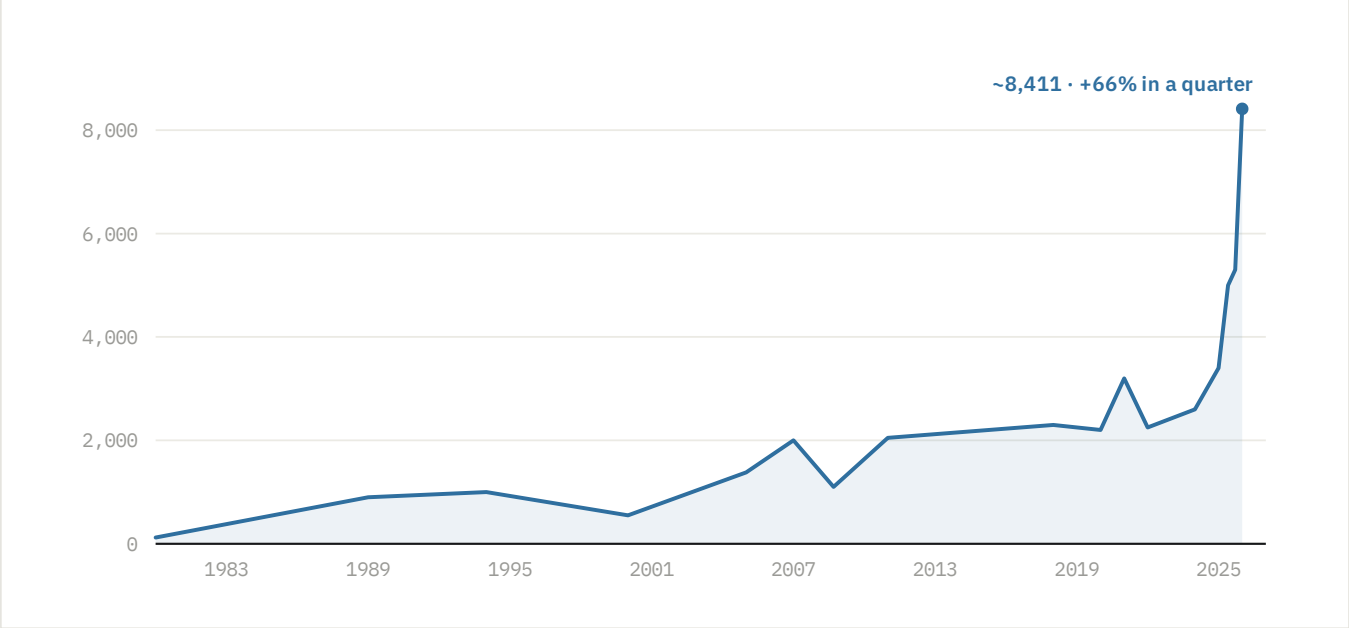


A multi-decade decline to ~1.4% reversed sharply; yields are back above 4%, raising the cost of capital just as the equity market melts up.

Source: TradingView (ICE / TVC), quarterly; chart rebuilt by the author.

FIGURE 14

KOSPI: a decades-long base, then a vertical move.

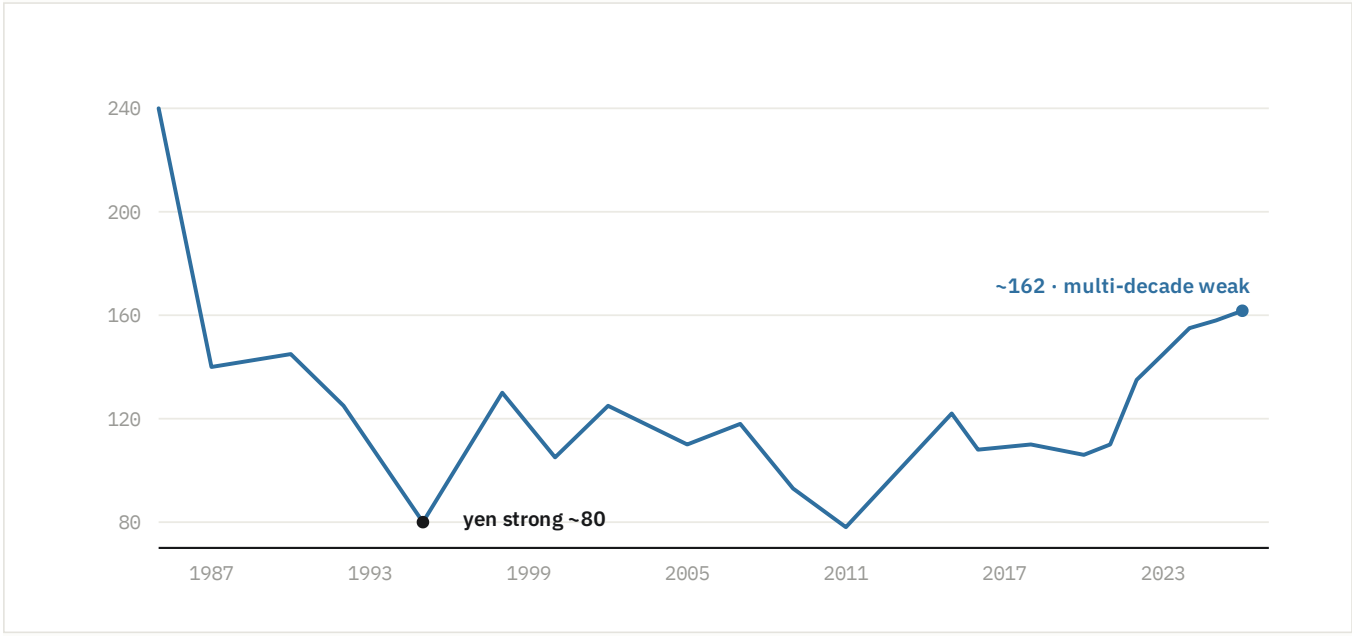


The index roughly doubled in a single quarter to ~8,411 (+66%) - a melt-up driven by Samsung and SK Hynix and the global AI-memory trade.

Source: TradingView (ICE / TVC), quarterly; chart rebuilt by the author.

FIGURE 15

USD/JPY, 1985-2026: from ¥80 to ¥162.

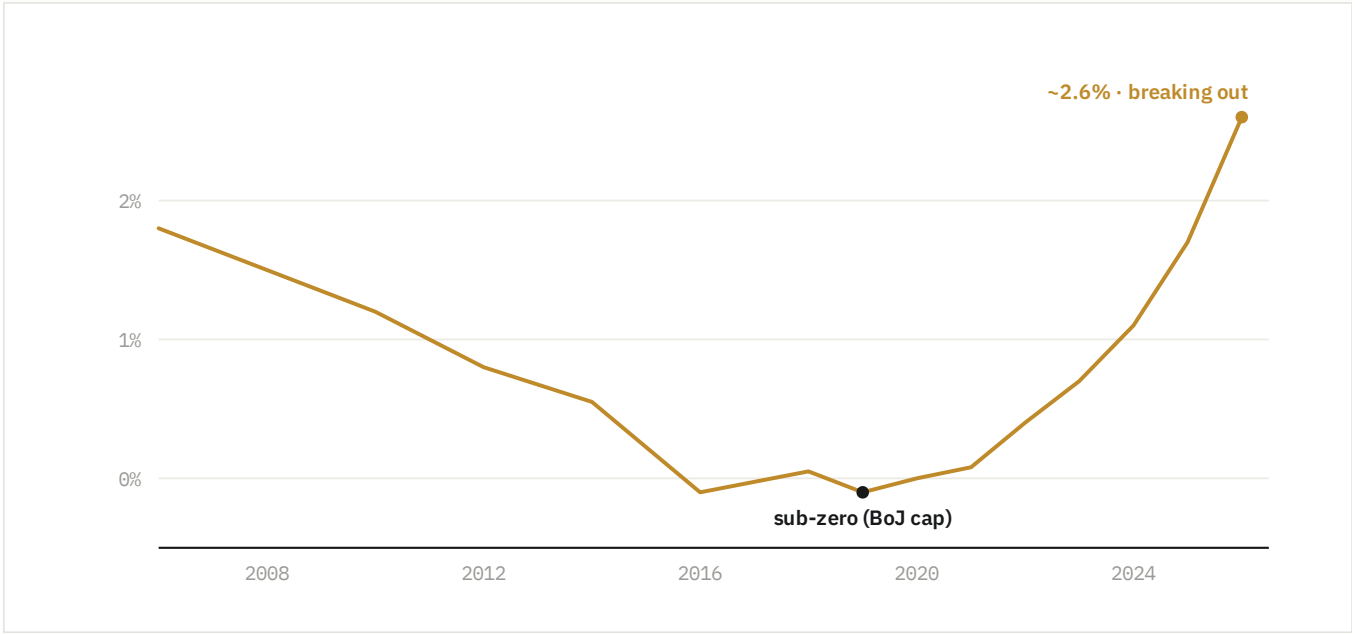


The yen strengthened to ~80 per dollar in the mid-1990s and again in 2011, then weakened multi-decade to ~162 by 2026.

Source: TradingView (FXCM / TVC / IG), quarterly; chart rebuilt by the author.

FIGURE 16

Japan 10-year government bond yield.

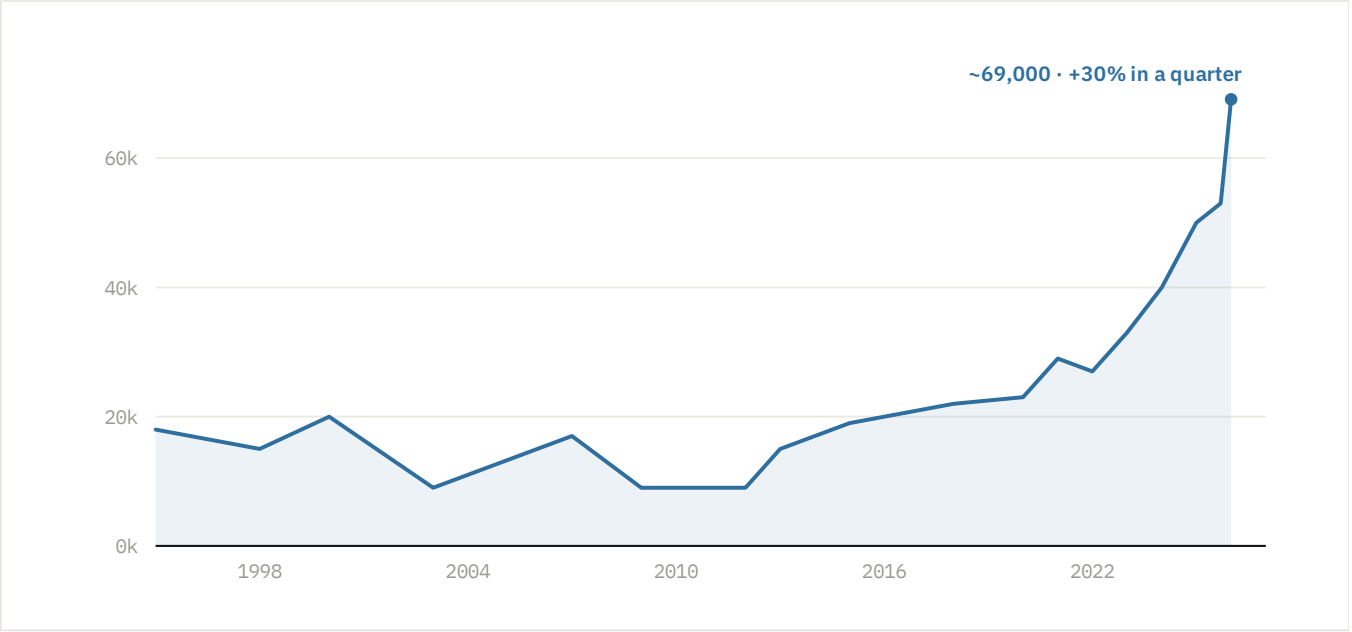


Pinned at or below zero for years under the Bank of Japan's yield cap, the 10-year has broken out to ~2.6% - a regime change for the most indebted sovereign in the developed world.

Source: TradingView (FXCM / TVC / IG), quarterly; chart rebuilt by the author.

FIGURE 17

Nikkei 225: the same late-stage acceleration.



After decades range-bound, the index accelerated to ~69,000 (+30% in a quarter), powered by semiconductor-equipment and AI-linked names.
Source: TradingView (FXCM / TVC / IG), quarterly; chart rebuilt by the author.

2.6 - The policy trap, stated rigorously

This is where the reflexivity turns dangerous, so let us be precise. These are advanced economies with credible central banks and deep reserves, not emerging markets one shock from runaway inflation. But the dollar backstop is thinner than it looks, and uneven: Japan has a standing swap line with the Federal Reserve; South Korea has only ever had the ad-hoc lines of 2008 and 2020; Taiwan has none at all. And a swap line covers US dollar funding, not the equity and capital outflows that actually move these currencies.

The cleanest way to see the bind is the monetary-policy trilemma: a country can hold only two of three things at once, a stable exchange rate, free movement of capital, and a monetary policy set for its own economy. Squeezed at the same time by capital heading for the exit and by a jump in import costs driven by commodities, and by energy above all, the central bank cannot stabilise the currency, keep policy loose enough to protect growth and debt service, and leave the capital account open, all together. Something has to give. Taiwan runs a heavily managed float - in practice closer to a soft peg - but the same arithmetic binds it.

Each country is trapped in its own way:

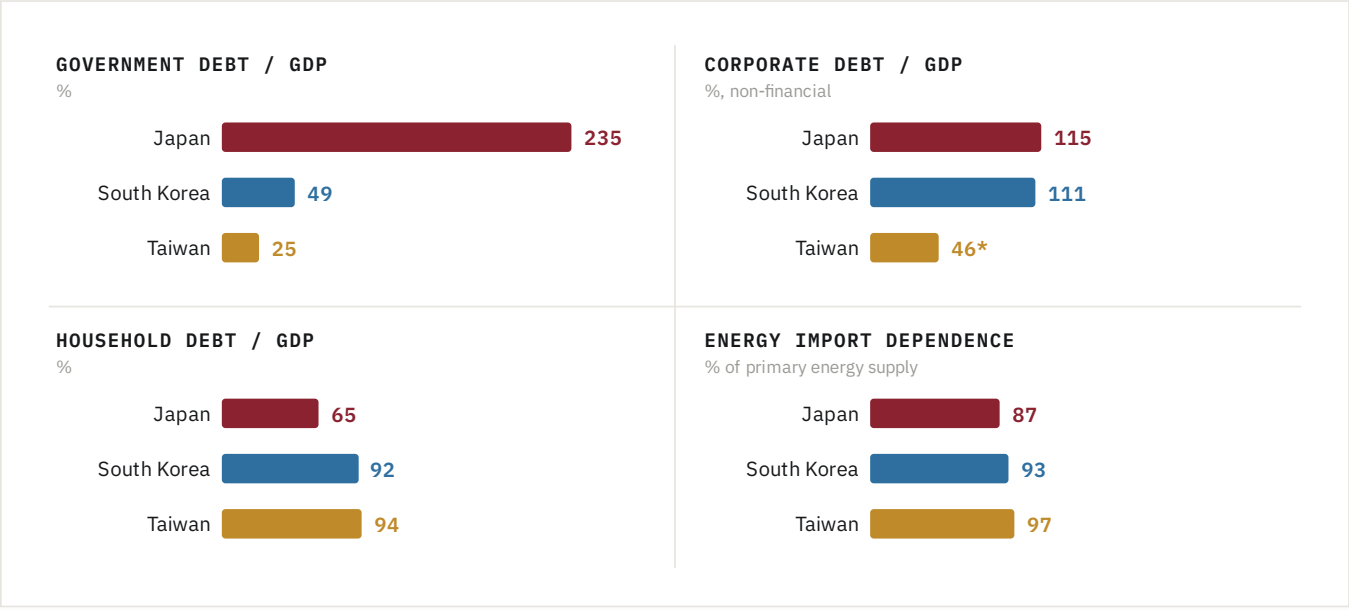
Japan's trap is sovereign debt. With public debt over 230% of GDP, the Bank of Japan cannot lean hard on rates without putting the government budget under strain, so the strain moves off the bond market and onto the currency instead: a chronically weak yen, and record FX market intervention as the yen slid past 160 - it trades at 162 as we write.[19]

South Korea's trap is household debt, at around 92% of GDP. Pushing rates up to defend the won would crush borrowers who are already stretched. And the won, as it happens, tracks equity-market flows far more closely than it tracks the trade balance: foreign positioning in chips, not the current-account surplus, is what moves it in the short run.[20]

Taiwan is the odd one out, and the most revealing. Its sovereign debt is low and it is a big net creditor, running one of the largest current-account surpluses in the world, north of 15% of GDP. So its currency risk is not collapse but wild two-way swings: in May 2025 the Taiwan dollar jumped almost 10% in two days, its sharpest move since the 1980s, on inflows and insurer hedging.[21] Its real weak point is a currency mismatch in life insurance, a sector sitting on more than US$700bn offshore with roughly 30% of it left unhedged[22] - and, increasingly, rising inflation and rate differentials that could pull capital out and weaken the soft-peg-style currency system itself.

FIGURE 18

Three traps, one shared exposure.



Debt binds each of the three somewhere different - Japan through the state, South Korea and Taiwan through households - and corporate balance sheets are nowhere the problem. What all three share sits in the fourth panel: nearly all of their energy is bought abroad, in dollars. *Taiwan corporate figure is bank credit to enterprises (CBC), a narrower basis than the BIS series used for Japan and South Korea.

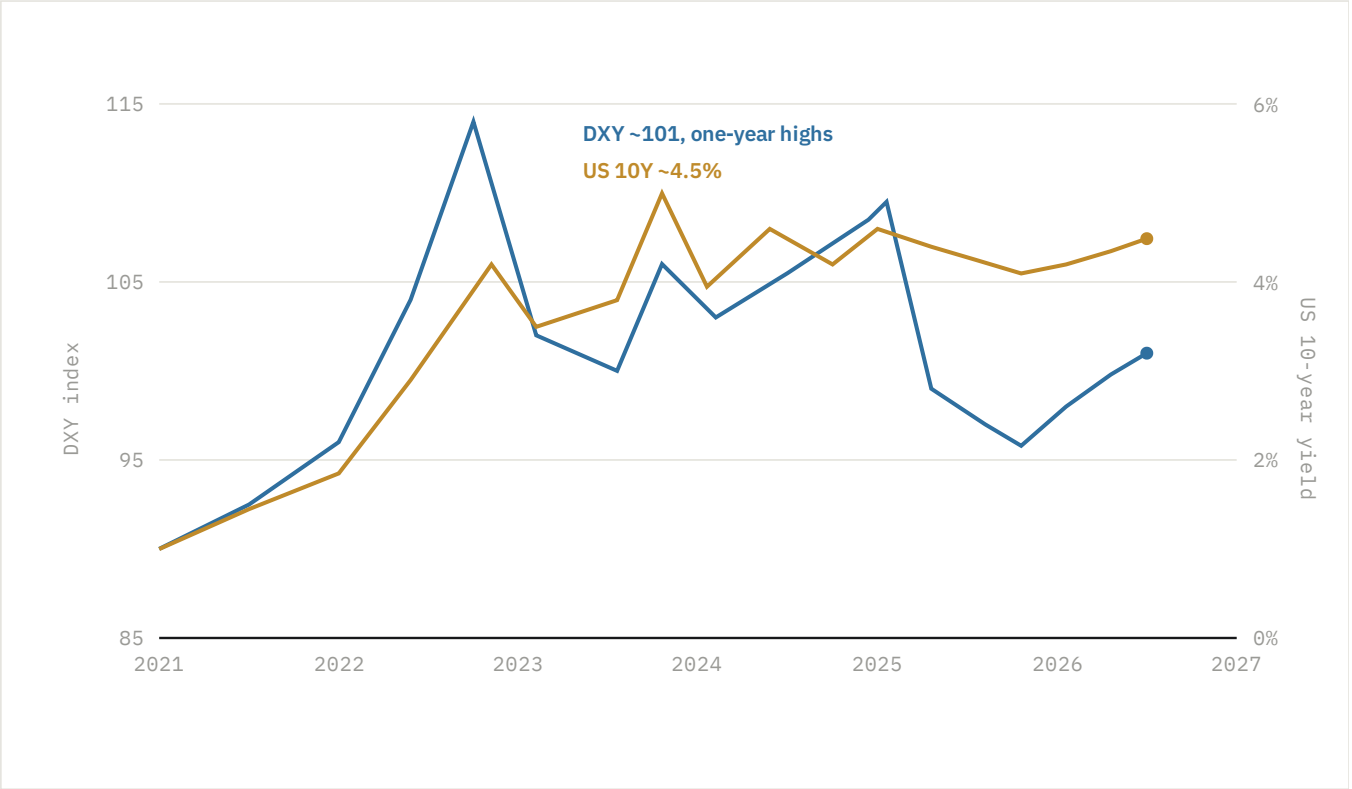
Sources: IMF and national ministries of finance (government); BIS (corporate and household, Japan and South Korea); CBC, CEIC (Taiwan); METI, KEEI, Bureau of Energy (energy). Latest available, 2024-25.

So what they share is not a weak balance sheet. It is sensitivity to capital flows. Once the marginal owner is foreign, the index is one big theme, the energy bill is in dollars and reserves are smaller than the free float, the exchange rate is what ends up absorbing the pressure, and there is a hard limit on how much the central bank can do about it.

Run the stress case through each of them. If the currency slides far enough that the central bank must raise rates to defend it, what do the foreign owners of the stocks do? Almost certainly they sell, and sell hard: the return they came for is evaporating in exchange-rate terms, and the selling weakens the currency further, forcing the next hike. That loop is the subject of §3. Now run it from the other end. What happens to the yen carry trade if US rates and yields move further north and the US dollar keeps accelerating? With the yen at those levels and a 10-year Treasury near 4.5%, that trade is large, crowded, and priced for calm. The two forces are the same trade at different moments: divergence builds the position, stress unwinds it, violently.

FIGURE 19

The pull on the other side: the dollar and the US 10-year.



The dollar index near 101, testing one-year highs, and the 10-year Treasury at ~4.5% (30 June 2026), with markets pricing further Fed tightening. Every basis point, and every tick of dollar strength, raises the gravitational pull on Asian capital and tightens the squeeze on the three economies above.

Source: ICE (DXY), US Department of the Treasury (10-year constant maturity), 30 June 2026; chart rebuilt by the author.

There is a name for a dollar behaving like this. In 1984, George Soros called it the Imperial Circle: large US deficits financing high real rates; high rates pulling in foreign capital; the inflows feeding a stronger dollar. Benign for the United States, vicious for the debtor and exporter economies on the other side of it. He also explained why it could not last: a loop that reinforces itself on the way up reinforces itself on the way down, and within two years the dollar had turned - policy helped it turn - and the circle ran in reverse. History is not obliged to repeat, and we do not claim it will. But the configuration on the charts above - US twin deficits, 10-year yields near 4.5%, a dollar at one-year highs and potentially going higher, tugging at Asia's capital accounts - is a very similar setup, and the possibility that it resolves the same way belongs to a future we do not think is far off.[23]

That completes the map of the fragilities: concentration, energy, ownership, a shield smaller than the float, and a dollar pulling at all four at once. What remains is to trace how stress actually travels through them - and it travels along two chains.

03 The transmission: two chains, one question

Say Soros's reflexivity flips into reverse and the cycle begins to re-rate downward. How does the damage move, and where does it come to rest? The boom runs on two loops that feed each other: the demand side, the so-called hyperscalers, the clients buying the compute, and the supply side, the East Asian firms building it. Follow either one to the end and you arrive at the same question: can the asset prices the reflexivity has produced hold? What follows is a guess, and we treat it as one.

3.1 - The client chain: from financed capex to the return gap

Start with demand: spending without precedent. The five biggest hyperscalers are heading for capital expenditure north of $600bn in 2026, around three-quarters of it on AI, at a capital intensity of 45 to 57% of revenue, which is more typical of utilities than software firms.[24] What has changed is the funding. These companies came into this with net cash or barely any debt, which is why a 2000-style credit blow-up looks unlikely on the client side in the US, but the next dollar is more and more a

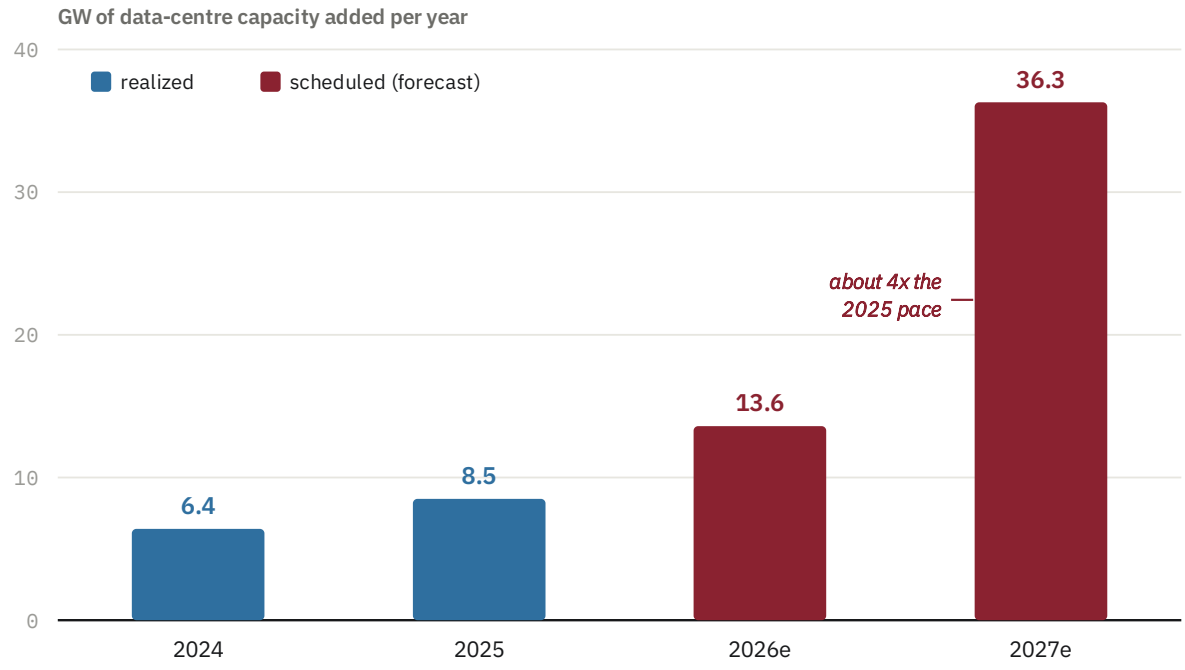
borrowed one. The big cloud names issued about $108bn of bonds in 2025; Morgan Stanley sees another $250-300bn in 2026, and J.P. Morgan something like $1.5tn of tech debt over the next few years.[25] Meta's $29.5bn Hyperion data-centre vehicle, geared above 90% at the fund level, is the template for the off-balance-sheet structures, private-credit deals and GPU-backed loans now financing the build-out. The leverage has not gone away. It has moved to the edges, into onshore and offshore SPVs, where it is hardest to spot.

From there the chain is mechanical, at least to start with. All that capex is inflationary in its own right, bidding up power, construction and skilled labour, which pushes rates and the cost of capital higher, in the US especially. But the demand it is meant to serve may be thinner than it looks. The growth is real in the accounts; what is in question is how much of it is durable. Some of it is circular: a chip maker invests in the AI labs that are among its biggest customers, and the money comes back as revenue, reflexivity dressed up as demand. Some of it may be the old shortage-era habit of double-ordering, which vanishes the moment supply loosens, just as fibre orders did after 2000. And the customer list is short: 4 or 5 firms are most of the market, and two of the largest, OpenAI and Anthropic, still don't turn a profit.

Underneath all of it is the adoption point from Chapter 1: if the cost-benefit doesn't land, or fear slows people down, real demand shows up later than market participants assumed. The timing problem is also physical. All that spending takes for granted that capacity can be added at a rate the United States has never actually hit. On the schedules the market is working from, annual data-centre additions leap from 8.5 gigawatts in 2025 to more than 36 in 2027, roughly a 4-fold jump in 2 years. The catch is that the scarce input is not money but power. Big transformers now take 3 to 5 years to turn up, grid-connection queues run from 2 to 7, and of the 16 gigawatts the country meant to bring online this year, only about 5 are actually being built. If the capacity shows up late, the revenue the suppliers are priced for shows up late with it. And power is only half the story. The grids are ageing, and the new capacity that would relieve them, nuclear included, takes years to permit and build. Adoption is running into a limit of its own: for a lot of real work the model still costs more to run than the worker it was meant to replace, and independent estimates put enterprise AI returns well below its costs so far,[26] which is why even the biggest firms have reasons to rotate their most expensive systems rather than turn them loose everywhere. If products are so expensive, demand does not scale on the timetable the capex assumes.

FIGURE 20

The build-out the market is pricing - and the bottleneck under it.



US data-centre capacity added per year, in gigawatts. The schedules the AI trade is working from assume annual additions roughly quadruple between 2025 and 2027, from 8.5 to 36.3 GW - a pace the country has never managed. The binding constraint is not capital but power: large transformers now carry lead times of three to five years and grid-connection queues run from two to seven, and of the roughly 16 GW the US planned to energise in 2026 (a broader planning measure than the additions charted here), only about 5 GW is actually under construction. If the capacity arrives late, so does the revenue priced into the suppliers' shares.

Source: Goldman Sachs / Aterio (additions); Sightline Climate and TD Cowen (planned vs. under construction); BloombergNEF. June 2026.

3.2 - The supplier chain: from explosive revenue to capital flight

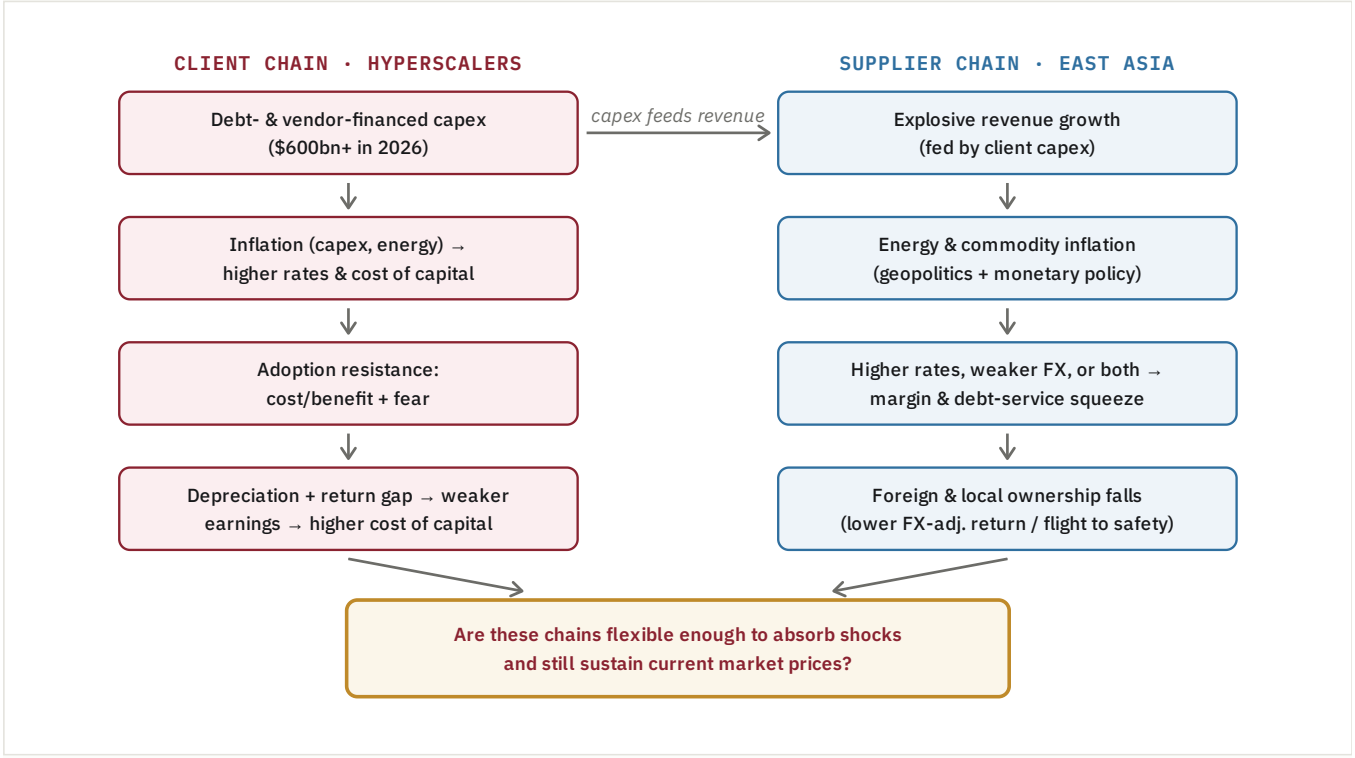
The supply side runs the same logic in reverse, and the first chain feeds it directly: the clients' capex is the suppliers' revenue, and East Asia's chipmakers have booked enormous growth on the back of it, exports powering national accounts even as their currencies weaken.[27] But the same macro pressures reach them from a worse starting point. Imported energy and commodity costs, pushed up by geopolitics on the supply side and, through the exchange rate, by central banks pulling in different directions, bear down on economies that buy nearly all their fuel abroad. Higher rates, a softer currency, or both, then eat into margins while debt costs climb. And with these markets 35 to 49% foreign-owned, and foreign holdings bigger than the reserves behind them, the reaction is to leave: once the currency-adjusted return slips on one side and revenues weaken on the other, and the rush to safety sets in, foreigners sell first and locals follow, faster than the reserves can soak it up. The currency spiral from Chapter 2 is just the last link in this chain.

3.3 - Where the two chains meet: the price question

Both circuits end in the same place.

FIGURE 21

The two chains of the AI trade - and the question they share.



The build-out runs on two interlocking circuits. The clients' debt- and vendor-financed capex is the suppliers' revenue; followed down, both chains converge on a single test - whether the two chains are flexible enough to absorb a shock and still hold those prices.

Source: Author's framework; figures per §3.1.

The best guide to what could happen next is the telecom build-out of 1999 to 2001. Investors threw money at fibre, cable and data centres; when the mood turned, the contracts already signed got finished, but new ones were cut to the bone, the write-downs were huge, and the most heavily borrowed builders, WorldCom and Global Crossing among them, went under.[28] The cables, though, stayed in the ground and went on to power the broadband for decades. The same thing applies here: it is the stock prices that break, not necessarily the companies. The best assets, a TSMC or an Nvidia, most likely come through and keep compounding. The pain lands on their share prices, on the leveraged and second-tier builders (the first cracks are already showing: one listed GPU-cloud builder lost around 60% from a 2025 high in a matter of weeks), and, the new wrinkle this time, on the currencies and capital accounts of the three countries that make the hardware.

One property of this structure deserves its own line: it is a domino run. Whether the first tile falls in the West, an AI-revenue miss, a hyperscaler cutting capex, or in the East, an energy shock, a currency break in Tokyo, Seoul or Taipei, matters less than it seems, because the chains are joined at every link. Capex is revenue; revenue is the index; the index is the currency; the currency feeds back into the cost of everything, capex included. Once the dominoes start falling, the run does not remember where it started.

Which brings us back to the question both chains were built to ask. Take away the engineering and the geopolitics and the whole thing comes down to one test: can these two chains bend enough to take a shock and still hold up the prices the boom has produced? Everything so far has been an attempt to put that question fairly, not to dress an answer up as more certain than it is. The next section gives the other side its best shot, because a view is only worth holding if it can take the punch.

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04 Counterarguments and falsification

A bubble call is only worth anything if it can take its own strongest objections, and say plainly what would prove it wrong.

The strongest objection: "this time the cash flows are real"

It is partly right, and it counts. Unlike the revenue-free dot-coms or the debt-soaked telecoms of 1999, today's hardware leaders make enormous and growing profits, and most of the capex still comes out of the cash flow of rich hyperscalers rather than newcomers borrowing on a prayer. That makes a 2000-style credit cascade less likely, and it is the best single reason to go easy on the bear case.

Three things keep the argument standing without overstating it. First, **the discounting error never needed the earnings to be fake**, just enthusiastically overestimated. It needs only the asset price to carry too much of the future too early; a company can have real, rising profits and still be priced for a future that arrives more slowly than hoped.[29] Second, **the leverage has crept back in through a side door**. Vendor and circular financing, a chip vendor putting money into the labs that buy its chips, or a holding company funding a US$30bn equity stake with a twelve-month bridge loan, brings back the very reflexivity that "all equity, all cash" was meant to keep out.[30] Third, **concentration is what turns an ordinary de-rating into something systemic**: when two or three names are over 40% of an index that is itself about 45% foreign-owned, even a routine valuation reset, not a crash, feeds straight through into the index and the currency behind it.

What would falsify this view

We would drop the thesis, or mark it down a long way, if any of these came true: AI revenue that can actually be monetised speeds up for good and closes the Bain/McKinsey return gap[26]; US policy rates come down into a clean soft landing, easing the dollar's pull on Asian money; the Taiwanese and South Korean indices broaden out and the single-name concentration eases; or energy markets stay quiet and take away the import-shock amplifier. Pointing the other way, the signs that it is playing out would be an AI-revenue trajectory that stalls at the same time as sustained foreign equity outflows and renewed currency pressure in Tokyo, Seoul and Taipei.

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05 Conclusion

The technology is real; the risk is in how it is priced today. That has held for every breakthrough technology since radio, and there is little reason to think AI gets a pass. What is genuinely new is the geography. The hardware layer of this boom packs the valuation risk into three economies that are at once near-total energy importers, mostly or heavily foreign-owned, and all three defended by reserves smaller than the potential outflow - though in Japan the stress flow runs inward, through the yen carry trade, rather than out. A valuation cycle is sitting on a capital-flow fault line.

None of this predicts a crash, and it should not be read as one. What it points to is an intersection, an AI valuation cycle meeting an energy-and-flow weakness, that stays under-priced mainly because each half is usually studied on its own. Two things are worth watching, and they are simple enough: the AI return gap, and the energy-and-currency channel running through Seoul, Taipei and Tokyo. If they turn at the same time, the sequence will probably rhyme with the past: the infrastructure survives, and the price does not.

And if the pattern of the durable technologies holds, the prices eventually come back too, as they did for the internet and for Bitcoin - because what breaks is a cycle of excessive discounting, not the technology or the revenues behind it. We expect the same here, even if this bubble bursts. That expectation stands until the day a newer technology makes this one the incumbent being overtaken - television's fate, not the internet's - and the same circle begins again through something else. The circle does not live in any particular technology. It lives in human nature.

A note on China. *We have left China out of the thesis on purpose, for lack of reliable, widely accepted data. Capital controls, administratively suppressed yields, a dual-currency peg, a deflating property market and an active tariff war all make its capital account behave unlike the three economies studied here. What is not in doubt is that China refines and processes more than 90% of the world's rare earths, the inputs without which chips and hardware cannot be produced, and that it also retains an open interest in reunification with Taiwan, the pivot of the whole supply chain and a key US ally in the region alongside Japan and South Korea.*

- References and sources

[1] Price histories rebuilt by the author from TradingView, Investing.com, CoinDesk, Fortune and Yahoo Finance (2026); Euronext Paris, NASDAQ, ICE, FXCM and TVC series.

[2] Soros, G., *The Alchemy of Finance*, Wiley (1987); theory of reflexivity and the two-component structure of a bubble (an underlying trend and a self-reinforcing misconception).

[3] Perez, C., *Technological Revolutions and Financial Capital: The Dynamics of Bubbles and Golden Ages*, Edward Elgar, 2002.

[4] Amara's Law, as commonly formulated in technology-forecasting literature.

[5] Shiller, R., *Irrational Exuberance*, Princeton University Press, 3rd ed., 2015.

[6] Galbraith, J.K., *The Great Crash 1929*, Houghton Mifflin (reissue 1997). RCA price history from contemporaneous records.

[7] Nasdaq Composite and Bitcoin price histories; index/exchange data.

[8] Rogers, E. M., *Diffusion of Innovations*, Free Press (1962; 5th ed. 2003); adopter categories and the S-curve. See also Moore, G. A., *Crossing the Chasm*, HarperBusiness (1991).

[9] Ram, S. & Sheth, J. N., “Consumer Resistance to Innovations: The Marketing Problem and Its Solutions,” *Journal of Consumer Marketing* 6(2), 5-14 (1989).

[10] Juma, C., *Innovation and Its Enemies: Why People Resist New Technologies*, Oxford University Press (2016).

[11] David, P. A., “The Dynamo and the Computer,” *American Economic Review* 80(2), 355-361 (1990); Bresnahan, T. & Trajtenberg, M., “General Purpose Technologies,” *Journal of Econometrics* (1995).

[12] Brynjolfsson, E., Rock, D. & Syverson, C., “The Productivity J-Curve,” *American Economic Journal: Macroeconomics* 13(1) (2021); and “Artificial Intelligence and the Modern Productivity Paradox,” NBER WP 24001 (2017).

[13] DoubleLine, "TSMC - 50% of Taiwan," 2025; UOB via CNBC, "TSMC, Samsung, SK Hynix... concentration risk," 2026.

[14] Manulife Investment Management, reported by CNBC, May 2026 (Samsung + SK Hynix ~42.2% of KOSPI).

[15] Japan Ministry of Finance / Agency for Natural Resources and Energy; IEA energy data; Taiwan CBC and energy authorities.

[16] Taiwan Stock Exchange (TWSE); Financial Supervisory Service (South Korea); Tokyo Stock Exchange shareownership survey, 2024-2026.

[17] Fintel / exchange filings on TSMC foreign ownership; South Korea FSS data on Samsung Electronics and SK Hynix foreign holdings.

[18] Central Bank of the Republic of China (Taiwan); Financial Supervisory Service (South Korea); author's calculations on reserves vs. foreign holdings.

[19] Brookings Institution on the yen and Japanese debt dynamics; Japan MOF intervention data, 2026.

[20] ASEAN+3 Macroeconomic Research Office (AMRO), "What Makes the Korean Won Move?" - VAR decomposition, 1999-2022.

[21] J.P. Morgan Private Bank, "Understanding the big moves in Asia FX," May 2025; ANZ Research.

[22] J.P. Morgan Private Bank (as above) on Taiwanese life-insurer offshore assets and hedging.

[23] Soros, G., "The Danger of Reagan's Imperial Circle" (1984), and *The Alchemy of Finance* (1987), on the self-reversing dollar loop of the early 1980s.

[24] Company filings and press reporting on hyperscaler capital expenditure, 2026.

[25] Hyperscaler capex and AI-debt issuance: CreditSights and Morgan Stanley 2026 estimates; Breckinridge Capital, “The Price of AI” (2026); Meta Hyperion SPV and CoreWeave GPU-collateralised financing, as reported (2025-26).

[26] Bain & Company, "Your AI budget is growing, your returns aren't," 2025; McKinsey & Company, "The seven operating truths of AI-native companies," 2025.

[27] South Korea Herald, "Strong exports, weak currency," Jan 2026, on the US-led AI boom and global capital shifts.

[28] Reporting on the 2000-2002 telecom/fibre bust: WorldCom and Global Crossing bankruptcies; Cisco inventory write-downs.

[29] The GPU depreciation debate: Michael Burry on hyperscaler useful-life assumptions (2025); analysis in Deep Quarry / Nonlinear Analytics (2025-26); Amazon’s 2025 server useful-life revision.

[30] Press reporting on Nvidia equity investments in AI labs and SoftBank's bridge financing of its OpenAI stake, 2025-2026.