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AI FOR AMERICANS FIRST

AI Protectionism, Energy and Semiconductors: US/Europe Divergence Trajectories 2024–2030

Integrated Geostrategic and Economic Analysis

Chapitre VI ter

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75% global AI compute = USA **$675B** US capex 2026

7-12× ratio US/EU

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CHAPTER VI TER

Consequences for Asia

Asia occupies a unique position in the architecture of American AI protectionism. Unlike Europe (a Tier 1 ally but dependent) or South America (Tier 2, a US-China competition ground), the Asian continent simultaneously concentrates: the primary targets of restrictions (China), critical industrial allies in the value chain (Japan, South Korea, Taiwan), the most ambitious Tier 2 candidates (India, Southeast Asia), and the systemic rival on the path to self-reliance (China via Huawei, SMIC, DeepSeek). This chapter analyzes the differentiated consequences of American AI protectionism through five structuring Asian cases.

6ter.1 Japan: Strategic Ally and Co-Investor

6ter.1.1 The US-Japan Partnership in AI Infrastructure

Japan illustrates the model of a Tier 1 ally integrated into the American ecosystem. In 2025-2026, Japan concluded with the United States a $550 billion investment agreement in AI infrastructure, energy, and semiconductors on American soil, including $332 billion for energy infrastructure (power plants, transmission networks) and the remainder for semiconductors and data centers.[1] Mitsubishi Electric contributes $30 billion in power supply systems for data centers, TDK $25 billion in power modules, and Fujikura supplies optical cables. Japan issues 1,780 billion yen in special bonds to finance Japanese investments in the United States under the bilateral trade agreement.[2]

Simultaneously, Japan is investing heavily in its own AI ecosystem. The government has committed 10,000 billion yen ($65 billion) for AI and semiconductors by 2030, with $330 billion in public-private investments projected over the decade.[3] The METI budget for fiscal year 2026 reaches 1,230 billion yen ($7.9 billion), nearly quadrupled from previous levels, including 387.3 billion yen for domestic foundation models and infrastructure, and 150 billion yen for Rapidus, the national 2 nm chip foundry project in Hokkaido.

6ter.1.2 Benefits and Risks of Privileged Ally Status

Japan benefits from unlimited access to American GPUs (Tier 1) and massive investments from US hyperscalers: Microsoft ($2.9 billion over two years), AWS ($15.2 billion by 2027), Google ($730 million including Google's first dedicated data center in Japan).[4] The Japanese data center market is the third largest globally, valued at $12.76 billion in 2025, projected to reach $38.92 billion by 2031 (annual growth of 20.4%). SoftBank commits over $40 billion through the Stargate project (partnership with OpenAI), and the Japanese private sector (NEC, Fujitsu, NTT, Sakura Internet) is developing domestic LLMs (Sarashina, Cotomi, Tsuzumi).

However, privileged ally status carries a risk analogous to the European Scenario C ("asymmetric partnership"). The $550 billion agreement represents a massive transfer of Japanese capital to the United States, funding that could alternatively be used to build domestic AI infrastructure. Japan becomes a *co-funder* of American compute supremacy while accelerating its own ecosystem—a duality that is only sustainable as long as the partnership remains beneficial to both parties. Moreover, despite Rapidus's efforts, Japan remains dependent on TSMC for advanced chip manufacturing and on Nvidia/AMD for AI accelerators.

6ter.2 Taiwan and South Korea: Critical Links and Geopolitical Hostages

6ter.2.1 Taiwan: The "Silicon Shield" Under Pressure

Taiwan occupies the most critical position in the global AI value chain. TSMC manufactures approximately 90% of advanced chips (nodes <7 nm), including all Nvidia and AMD GPUs. This extreme concentration gives Taiwan a « *silicon shield* » : a de facto geopolitical protection because no global actor can afford to disrupt production. But this same positioning makes Taiwan a strategic hostage: the United States demands production diversification (TSMC Arizona, $40 billion plant, production planned for 2025-2026 on the 4 nm node then 2 nm), while China exerts increasing military pressure.[5]

American protectionism has contradictory effects on Taiwan. On one hand, export restrictions to China reduce TSMC's revenues (China represented approximately 10% of revenue before restrictions). On the other, American demand for AI chips is exploding, largely compensating for Chinase losses. The American CHIPS Act and Section 232 tariffs create

pressure for TSMC to transfer an increasing share of its production to the United States, which could ultimately erode Taiwan's own competitive advantage. Taiwan is classified as Tier 1 and does not suffer from GPU restrictions, but its economic model based on advanced manufacturing is paradoxically threatened by the American repatriation of that very manufacturing.

6ter.2.2 South Korea: Memory Semiconductors and AI

South Korea, through Samsung Electronics and SK hynix, dominates the global advanced memory market (DRAM, HBM—High Bandwidth Memory), a critical component of AI GPUs. SK hynix supplies most of the HBM for Nvidia H100/H200/Blackwell GPUs. South Korea's national AI budget for 2026 reaches 9,900 billion won (approximately $6.7 billion), with nearly half dedicated to infrastructure.[6]

South Korea, like Japan, is classified as Tier 1 and benefits from unrestricted access. However, restrictions toward China significantly impact Samsung and SK hynix, which had substantial production operations in China. Samsung operates two memory plants and a NAND factory in Xi'an, while SK hynix has DRAM capacity in Dalian and Wuxi. American restrictions limit technological upgrades at these plants, progressively confining them to less advanced nodes. The Affiliates Rule, suspended until November 2026, threatens to extend these restrictions to other entities. American protectionism pushes Samsung and SK hynix to invest more in the United States (Samsung: $17 billion plant in Texas; SK hynix: HBM packaging in Indiana), accelerating industrial transfer to American territory.

6ter.3 India: The "Third Way" of Sovereign Compute

6ter.3.1 Massive Ambitions and Structural Gap

India positioned itself as the standard-bearer of the Global South for AI at the India AI Impact Summit in February 2026 in New Delhi, hosting nearly 20 heads of state as well as the CEOs of Google, OpenAI, and Anthropic. Investment announcements exceed $200 billion over two years, primarily from the private sector: Reliance/Jio ($110 billion over seven years, multi-GW data centers in Jamnagar, first 120 MW online in the second half of 2026), Tata Group (AI data centers from 100 MW to 1 GW, with OpenAI as the first tenant), and the Adani Group (renewable energy for data centers).[7]

But the gap between ambition and reality remains considerable. India's installed data center capacity is approximately 1.4 GW (2025), compared to 53.7 GW in the United States and 19.6 GW in China. The IndiaAI Mission, endowed with 10,372 crore rupees (approximately $1.2 billion over five years), deployed 38,000 GPUs with subsidized access, with an additional 20,000 GPUs announced.[8] For comparison, Baidu alone announced a 30,000 GPU cluster in 2025, and China's national AI compute capacity reached approximately 246 EFLOP/s by mid-2024. Indian public investment, while significant in the national context, represents what major American companies spend in a few months.

6ter.3.2 Tier 2 Classification and Circumvention Strategy

Like Brazil, India is classified as Tier 2, subject to quantitative GPU caps. Brookings identifies India, along with Brazil, as one of the Tier 2 countries most disadvantaged by the restrictions.[9] However, India is adopting a sophisticated circumvention strategy: it positions itself as a *compute exporter*. The 2026 budget introduces a zero-tax fiscal framework until 2047 for cloud services exported from Indian data centers.[10] The idea is to attract American hyperscalers to build on Indian soil to serve the Indian market and neighboring markets, thereby circumventing GPU import caps by hosting US compute locally.

This strategy aligns with the "third way" that India claims: cooperating with the United States (GPU access, OpenAI/Google/Microsoft partnerships) while building sovereign capabilities (IndiaAI Mission, domestic models like BharatGen) and amplifying the voice of the Global South. The risk is the same as for the European Scenario C: application-layer sovereignty without hardware sovereignty, since India remains entirely dependent on American GPUs and its semiconductor manufacturing projects (India Semiconductor Mission, $10 billion in incentives) will not produce advanced AI chips before 2028-2030.

6ter.4 China: Forced Self-Reliance

6ter.4.1 Impact and Adaptation

China is the primary and direct target of American AI protectionism (Tier 3, access to advanced GPUs prohibited since October 2022, expanded in 2023 and 2024). The results are ambivalent. On one hand, restrictions have slowed China's access to cutting-edge compute: Nvidia H100/H200/Blackwell GPUs are banned, the downgraded H20 chip

required a special license (approved in July 2025), and more than 65 Chinase entities were added to the Entity List in 2025.[11]

On the other hand, China has accelerated its drive toward self-reliance with notable results. Huawei developed the Ascend 910c (performance approaching Nvidia H100, at 60-70% of the cost according to analysts) and is pursuing the 910d. SMIC, despite being denied access to ASML's EUV machines, is progressing toward 5 nm manufacturing. DeepSeek-V3, a Chinase language model, achieved competitive performance on global benchmarks despite compute constraints.[12] China invested over $125 billion in AI infrastructure in 2025, targets an additional $70 billion in data centers for 2026, and projects 300 EFLOP/s of AI computing capacity with over 250 dedicated facilities. China's share of global foundry capacity is expected to rise from 21% to 30% by 2030, surpassing Taiwan.[13]

6ter.4.2 The Strategic Paradox for the United States

The Chinase case reveals a fundamental paradox of American AI protectionism. By limiting China's access to GPUs, the United States has accelerated (rather than slowed) the construction of an alternative Chinase AI value chain. As ITIF notes, restrictions push competitors to bridge the gap: Huawei, Biren Technology, MetaX, and Enflame are innovating in AI chip design.[14] The medium-term result could be the emergence of a second global AI ecosystem completely independent of American technology, creating the conditions for permanent technological bifurcation. This second ecosystem is precisely the one being exported to Brazil (ByteDance in Pecém), Southeast Asia (ByteDance in Malaysia and Thailand), and Africa, creating the global technological fragmentation analyzed in previous chapters.

6ter.5 Southeast Asia and the Gulf: New Arenas of Competition

6ter.5.1 Singapore, Malaysia, Thailand: The ASEAN AI Corridor

Southeast Asia is classified as Tier 2 and represents a growing competition ground between US and Chinase investments in AI infrastructure. Singapore, despite its size and energy constraints (~1 GW of DC capacity), has established itself as a regional hub thanks to its regulatory stability and R&D investments (SGD 5 billion for AI). Malaysia has become a hotspot: ByteDance is investing $2.1 billion in an AI hub there, while Microsoft, Google, and AWS are deploying data centers.[15] Thailand has received $8.8 billion from ByteDance for data centers. These Chinase investments are creating in Southeast Asia a concentration of Chinase AI infrastructure that could trigger secondary American restrictions over time.

6ter.5.2 UAE and Saudi Arabia: Compute as Economic Diversification

The Gulf states represent a different case: Tier 2 countries with very high investment capacity, for which AI is an instrument of post-oil diversification. The United Arab Emirates is developing the largest AI campus outside the United States (26 km², 5 GW planned, Abu Dhabi). Saudi Arabia announced over $15 billion in new AI investments at LEAP 2025, including $10 billion through a PIF-Google Cloud partnership and 500 MW each of AMD and Nvidia chips through its HUMAIN initiative.[16] The Trump administration eased restrictions toward the Middle East, recognizing the strategic and financial alliance potential. These Tier 2 countries are thus becoming financial partners of the American AI ecosystem (Abu Dhabi's MGX fund co-invested in Mistral AI), a "compute-for-capital" dynamic that transforms protectionism into a lever for financing US infrastructure.

6ter.6 Comparative Asia Synthesis

Country/ Region	Tier	DC Cap. (GW) 2025	AI Invest. (Bn$)	Main Strength	Main Risk
Japan	1	~12,8	135 (public+private)	US alliance + industry + R&D	US co-financing + GPU dependency

Taiwan	1	~3	N/A (producer)	TSMC 90% advanced chips	Production transfer to US + China pressure
South Korea	1	~5	6,7 (2026 budget)	HBM (SK hynix) + Samsung	China plants frozen + US transfer
India	2	~1,4	200+ (2 years)	1.4B pop. market + talent	Compute gap + Tier 2 caps
China	3	~19,6	125+ (2025)	Forced self-reliance	GPU lag + tech isolation
ASEAN	2	~3	15+ (US+CN combined)	Low costs + geo. position	US-China bifurcation
Gulf	2 (→ 1?)	~2	15+ (Saudi) + 5 GW (UAE)	Massive sovereign capital	Tech dependency + water/energy

Table 16. *Comparative synthesis of the Asian position facing American AI protectionism. Source: author compilation.*

6ter.7 The Geopolitical Rebalancing of AI in Asia

The analysis of Asia reveals that American AI protectionism produces a profound geopolitical rebalancing, articulated around three dynamics.

Dynamic 1: Consolidation of the US-Japan-Korea-Taiwan technological alliance. Asian Tier 1 allies are not simply passive beneficiaries. They are becoming massive co-investors in US infrastructure (Japan: $550 billion, Samsung/SK hynix: tens of billions in American plants), while accelerating their own ecosystem. This alliance is structurally more integrated than the US-Europe partnership, because Japan and Korea control critical segments of the value chain (HBM memory, equipment, materials) that the United States cannot easily substitute.

Dynamic 2: Emergence of an independent Chinase AI ecosystem. Contrary to what the architects of export controls anticipated, the restrictions have not neutralized Chinase AI innovation capacity. DeepSeek, Huawei Ascend, and massive infrastructure investments ($125 billion in 2025) show that China is building a parallel ecosystem. The lag

in cutting-edge GPUs (approximately 2-3 generations) is partially offset by software optimization, alternative architectures, and access to the domestic market (1.4 billion users). This ecosystem is being exported to South America (Chapter VI bis), Southeast Asia, and Africa.

Dynamic 3: India as the Global South pivot. The AI Impact Summit 2026 established India as the bridge between advanced economies and the Global South. With $200+ billion in commitments, 1.4 billion inhabitants, a pool of technical talent, and a "compute as export" strategy, India is positioning itself to capture a significant share of global AI infrastructure. However, its Tier 2 classification creates a fundamental tension with this ambition: GPU caps limit India's ability to build the infrastructure it projects. The resolution of this tension—promotion to Tier 1, VEU (Validated End User) status for Indian groups, or building non-US alternatives—will be one of the major bifurcation points of AI geopolitics 2026-2030.

For Europe and France (the main subject of this study), Asian dynamics create both opportunities and risks. Opportunities: technological alliances with Japan and Korea (ASML's investment in Mistral, the TSMC-Dresden partnership), access to Indian and Southeast Asian markets for European AI solutions. Risks: if the US-Japan-Korea-Taiwan bloc consolidates into a closed ecosystem, Europe could be marginalized as a second-tier technological ally, especially as massive Japanese investments in the United States accelerate the concentration of American compute that Europe is precisely seeking to reduce.

Notes

[1] Construction Today (November 2025), « Billion-Dollar AI Build Begins as Japan Backs US Data and Energy Push ». US-Japan agreement: $550B, including $332B energy, Bechtel and Kiewit general contractors.

[2] Taipei Times (December 2025). Japanese special bonds of ¥1,780B via NEXI. Mitsubishi Electric: $30B, TDK: $25B, Fujikura: optical cables.

[3] The Economy (November 2025), « Japan Revives State-Led Growth Strategy ». $66B public AI/semiconductor funds by 2030, $330B public-private over the decade. METI budget 2026: ¥1,230B.

[4] Introl Blog (August 2025), « Japan $135B AI Push ». MS: $2.9B; AWS: $15.2B by 2027; Google: $730M incl. dedicated DC Inzai. SoftBank: $40B via Stargate. Arizton: Japan DC market $12.76B (2025) → $38.92B (2031).

[5] TSMC Arizona: $40B plant, production planned 2025-2026 (4 nm), 2 nm extension. Samsung Austin: $17B plant. Data: multiple industry sources.

[6] Futurum (February 2026), « AI Capex 2026: The $690B Infrastructure Sprint ». South Korea national AI budget 2026: 9,900B won (~$6.7B).

[7] IBTimes India (February 2026), « India's AI Awakening ». Reliance: $110B over 7 years; Tata: DC 100 MW-1 GW with OpenAI; Adani: renewable energy for DC. Total: $310B+.

[8] Medium / Durgesh Kumar (February 2026). IndiaAI Mission: 10,372 crore rupees, 38,000 GPU + 20,000 announced, ₹65/hour subsidy. Mind2Markets (February 2026): India DC capacity 1.4 GW, US 53.7 GW, China 19.6 GW.

[9] Brookings (January 2025), op. cit. India and Brazil: largest Tier 2 markets, but insufficient caps.

[10] Constellation Research (February 2026), « Compute as an Export: India's Strategy ». 2026 budget: zero-tax framework until 2047 for cloud services exported from India.

[11] Introl Blog (January 2026), « AI Export Controls: Navigating Chip Restrictions Globally ». H100/H200/Blackwell banned Tier 3. 65+ entities added to Entity List in 2025.

[12] EastPost (February 2026), « India's AI Impact Summit Highlights Broad Gaps ». DeepSeek-V3: competitive performance under constraints. China: 246 EFLOP/s mid-2024, target 300 EFLOP/s. Huawei Ascend 910c: ~H100 at 60-70% of cost.

[13] IBTimes India (February 2026), op. cit. China: $125B AI infrastructure 2025, $70B DC 2026, 300 EFLOP/s, 250+ facilities. Tom's Hardware (2025): China foundry share 21% → 30% (2030).

[14] ITIF (May 2025), « Overly Stringent Export Controls Chip Away at US AI Leadership ». Huawei Ascend, Biren, MetaX, Enflame: alternative value chain under construction.

[15] ByteDance: $2.1B Malaysia (AI hub), $8.8B Thailand (data centers). Microsoft, Google, AWS: cloud regions in Malaysia, Singapore, Indonesia.

[16] Futurum (February 2026), op. cit. Saudi Arabia: $15B LEAP 2025, $10B PIF-Google Cloud, HUMAIN 500 MW AMD + 500 MW Nvidia. UAE: 26 km² campus, 5 GW, Abu Dhabi.