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AI FOR AMERICANS FIRST

AI Protectionism, Energy and Semiconductors:
US/Europe Divergence Trajectories 2024–2030
Integrated Geostrategic and Economic Analysis
Conclusion

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75% global AI compute = USA $675B US capex 2026 7–12× US/EU ratio

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7 chapters • 4 prospective scenarios • 3 geographic zones

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GENERAL CONCLUSION

From AI Protectionism to the Reshaping of the Global Technological Order

1. Validation of the Central Hypothesis

This study began with a precise hypothesis: the Trump 2.0 administration would transform Biden's export controls into a broader protectionist regime, using AI compute as an instrument of economic and geopolitical power — an implicit "AI for Americans First" executive order. The empirical analysis conducted over the 2022–2026 period substantially validates this hypothesis.

On January 15, 2026, the Trump administration simultaneously enacted a 25% tariff (Section 232) on advanced AI semiconductors (Nvidia H200, AMD MI325X) for re-exports to China, and published the BIS final rule governing AI chip exports. The combination of tariffs + export controls constitutes precisely the hybrid mechanism we anticipated: a "tax" on access to cutting-edge compute that generates revenue for the US Treasury while slowing competitors, combined with unlimited domestic access that reinforces the competitive advantage of US Big Tech.[1]

Furthermore, the AI Action Plan of July 2025 formalizes a doctrine that goes beyond simple national security controls: "export the complete AI stack (hardware, models, software, applications, and standards) to countries willing to join the American AI alliance," subject to compliance with US security requirements.[2] AI is no longer treated as just another technology, but as an instrument of power projection analogous to the dollar in the monetary system or oil in the energy system.

2. Summary of Results

2.1 A Measurable and Growing American Competitive Advantage

The CACI (Compute-Adjusted Competitive Index) developed in this study quantifies the structural asymmetry. The CACI(US)/CACI(EU) ratio stands between 7:1 and 12:1 in 2026, reflecting the concentration of 74% of global AI compute in the United States, annual hyperscaler capex of $660–690 billion (exceeding Sweden's GDP), and frontier model training costs 5 to 10 times lower than European costs. The advantage is self-reinforcing: companies with abundant compute access capture innovation and data rents that are very difficult to catch up with subsequently (Chapter IV).

2.2 A Three-Tier Protectionist Architecture

The analysis reveals that American AI protectionism operates at three distinct but cumulative levels:

First tier: export controls (inherited from Biden, maintained and transformed by Trump). The tier system (Tier 1/2/3) segments the world according to geopolitical alignment: free access for close allies (20 countries), quantitative caps for the rest of the world, prohibition for adversaries (China, Russia). Even after the formal repeal of the AI Diffusion Rule in May 2025, regulatory uncertainty weighs on investment decisions of Tier 2 countries (Chapter III).

Second tier: customs tariffs (Trump innovation). The 25% tariff on advanced AI semiconductors (Section 232, January 2026) represents a break: export controls aimed at national security, tariffs explicitly target revenue and competitive advantage. The

combination of tariffs + domestic exemptions creates a direct cost differential between American and non-American companies (Chapter V).

Third tier: capitalistic gravity. The concentration of capex ($660–690 billion among five companies in 2026), combined with energy access (the US accepts increased reliance on fossil fuels, 53.7 GW of installed DC capacity), creates a gravitational effect: Japanese investments ($550 billion), UAE, SoftBank/Stargate investments converge on American soil, reinforcing the compute hub without additional regulatory intervention (Chapter VI ter).

2.3 Differentiated Consequences by Region

Table 18. Summary of regional consequences of American AI protectionism. Source: author.

3. Contributions of This Study

This research makes four contributions to the economic and geostrategic literature.

First, the analytical integration of trajectories usually treated separately — energy, semiconductors, compute, regulation, productivity — into a unified framework. As the initial diagnosis notes, most academic work treats these dimensions separately; our analysis shows that they form a system of interdependencies where each constraint amplifies the others (energy constrains compute, compute constrains productivity, productivity determines competitiveness).

Second, the proposal of the CACI (Compute-Adjusted Competitive Index), which offers a measurement framework for comparing AI competitiveness across regions by integrating available FLOPs, energy cost, human capital, and regulatory access. While this index still needs empirical refinement, it constitutes a first attempt to synthesize the concept of "compute-adjusted competitiveness" identified as missing in the literature (Chapter II).

Third, the demonstration that American AI protectionism produces systemic paradoxical effects. Restrictions intended to maintain the US advantage accelerate the construction of an alternative Chinese ecosystem (DeepSeek, Huawei Ascend), push Tier 2 countries toward China (ByteDance in Brazil, in ASEAN), and incentivize Tier 1 allies to co-finance US supremacy rather than build genuine autonomy (Japan: $550 billion toward the US). AI protectionism does not produce a unipolar world but a world fragmented into technological blocs.

Fourth, the unprecedented comparative analysis of regional responses to AI protectionism (Europe, South America, Asia), showing that geopolitical position, energy endowment, and proximity to value chains determine fundamentally different dependency trajectories, irreducible to a single model of "catching up" or "falling behind."

4. Limitations and Research Directions

This study has several limitations that should be made explicit.

Regulatory uncertainty. The export control environment evolves rapidly. Biden's AI Diffusion Rule was repealed in May 2025; Trump's final rule of January 2026 could itself be modified (Commerce must provide an update to the President by July 2026). The scenarios proposed in Chapter V reflect this uncertainty, but the space of possibilities is broader than the four formalized scenarios.

Fragmentary data. AI compute data by region is incomplete. Estimates of computing capacity (FLOPs, GPU count) rely on heterogeneous sources (Epoch AI, CFG, McKinsey) that do not always converge. The CACI is an exploratory index, not an indicator calibrated on long time series.

Time horizon. The analysis covers 2026–2030, but technological disruptions (quantum computing, sub-2 nm nodes, neuromorphic architectures) could reshuffle the deck after 2030. Nvidia's current GPU advantage could be challenged by specialized ASICs (Google TPU, Amazon Trainium, Huawei Ascend) or radically different architectures.

Future research directions. Three extensions are warranted: empirical calibration of the CACI using survey data (sectoral productivity by compute access), extension of the analysis to Africa (a continent absent from this study but where US-China competition in AI infrastructure is growing), and dynamic modeling of the energy-compute-productivity interaction via computable general equilibrium (CGE) models integrating compute constraints as a factor of production.

5. The Civilizational Stakes

Beyond economic metrics and geopolitical scenarios, this study reveals a more fundamental issue. AI compute is on the verge of becoming the fourth factor of production (after capital, labor, and land/energy), structuring access to productivity gains, innovation, and ultimately prosperity. Like oil in the 20th century, control of compute in the 21st century will determine which nations and companies capture innovation rents.

The United States has understood this. The AI Action Plan of July 2025 explicitly treats the AI stack as an instrument of geopolitical alliance, comparable to the Marshall Plan or the Bretton Woods system: access to American compute is conditioned on strategic alignment, creating a system of hierarchical dependencies. Carnegie notes that the rule aimed to "use AI exports as leverage over geopolitical swing states, establishing incentives for other governments to adopt American technological standards and protections in exchange for US chips."[3]

Facing this new system, France and Europe have a strategic choice that ultimately comes down to three options. The first is subordinate integration: accepting the status of technological "junior partner" within the American bloc, as Japan has chosen by investing $550 billion on US soil. This option minimizes the risk of access disruption but maximizes dependency. The second is sovereigntist confrontation: building an entirely autonomous AI ecosystem, as China is compelled to do. This option is unrealistic by 2030 for Europe, which lacks both the semiconductor industrial base and sufficient domestic market capacity.

The third option — the one this study recommends — is targeted strategic autonomy. It consists of building sovereignty over segments where Europe has a comparative advantage (nuclear energy, ASML lithography equipment, Mistral open AI models, AI Act regulatory framework) while maintaining interoperability with the American ecosystem. The goal is not autarky but the capacity for choice: having credible alternatives (sovereign cloud, local compute, open models) to never be captive to a supplier whose geopolitical interests could diverge from ours.

Time is pressing. The energy and compute tipping point identified in this study is in 2028: after that date, positions crystallize and dependencies become structural. The strategic action window of 2026–2028 is narrow. The €109 billion in AI investments announced for France, the InvestAI program of €200 billion, the ramp-up of Mistral Compute, and dedicated EDF nuclear sites constitute the elements of a response. But between announcement and execution lies the distance that separates strategy from reality. India promises $200 billion but has only 1.4 GW installed. Europe cannot afford a comparable gap between ambition and achievement.

Ultimately, "AI for Americans First" is not merely a trade policy scenario. It is the signal of a reshaping of the global technological order comparable to the great restructurings of the 20th century — Bretton Woods, the oil shock, the end of the Cold War. Each of these disruptions created winners and losers for decades. The question for France and Europe is no longer

whether this reshaping will take place — it is underway — but whether we will be its architects or its subjects.

— Fabrice, Paris, February 2026

Notes

1 Pillsbury Law (January 2026), "Trump Admin Targets Advanced AI Semiconductors." Section 232: 25% tariff on Nvidia H200, AMD MI325X for China re-export. US domestic exemptions. Simultaneous BIS final rule. DC market update expected July 2026.

2 White House / CM Trade Law (July 2025), "America's AI Action Plan." Pillar III: export the "full AI technology stack" to allies. Four principles: export to allies, enforcement strengthening, global alignment, protective measures.

3 Carnegie Endowment for International Peace (May 2025), "The Trump Administration May Be About to Repeal the AI Diffusion Rule." Analysis of the control/promotion/leverage trilemma. Recommendation: expand Tier 1 group, increase India allocations, strengthen localization requirements.

Study Overview

Table 19. Summary of chapters, volume, and critical apparatus of the study.

Main sources used: IEA, McKinsey, Bruegel, Brookings, Carnegie Endowment, European Commission, White House/BIS, European Parliament, CSIS, S&P Global, Epoch AI, Centre for Future Generations (CFG), Euronews, CEPALC/CENIA (ILIA 2025), World Bank, Futurum, Introl, World Nuclear News, Arizton, Pillsbury Law, ITIF, Foreign Policy, Hudson Institute. Supplementary data: Bloomberg, DCD, Morgan Lewis, Tom's Hardware, Mordor Intelligence, Serrari Group, Data Center Knowledge.