ARTIFICIAL INTELLIGENCE AS NEW CAPITAL: GEOECONOMIC COMPETITION AND RESHAPING OF GLOBAL ORDER

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Abstract

Artificial Intelligence (AI) is increasingly transforming core sectors of the global economy, encompassing semiconductors, cloud infrastructure, and digital finance. However, instead of deepening international cooperation, AI has accelerated strategic competition between the two top economies and tech leaders, the United States and China. Drawing on neorealist theory, this study examines how AI, as a capability multiplier and a form of relative power, is utilised by states to enhance their tech advantages in economic and security arenas, thereby creating a techno-geoeconomic security dilemma that enables the US and China to leverage each other. It explores AI's relative capability concerns, prompting balancing measures, such as trade restrictions, technology blocks, and domestic technological initiatives. The tech oligarchs in Silicon Valley's American Silicon Valley monopolise AI, data, and related technologies in pursuit of global hegemony. China, amid US export control bans, is developing its indigenous technologies (Chips, LLM models, supercomputing, etc.) through self-help efforts to ensure technological sovereignty. This study employs process tracing for policy analysis, explaining strategic preferences and sector-specific dimensions of competition, providing concrete empirical evidence across defence and geoeconomic domains. Findings reveal that the US uses semiconductor and AI chip export controls, financial chokepoints (such as the SWIFT payment system), and tech alliances to maintain its global pre-eminence. In contrast, China, as part of its balancing act, responds by creating e-CNY and CIPS as means for BRI partners. It concludes that such competition is driven less by economic prosperity or absolute gains than by relative gains and tech sovereignty to secure structural advantage in an anarchic international system.

Keywords: AI-powered Market, US-China Competition, Technological Sovereignty, Global Economic Governance, Neo-Realist Perspective, Geoeconomics.

Introduction

In an anarchic international system, the twenty-first century has witnessed the emergence of race for AI dominance. It creates new forms of relative power.

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AI-enabled economic competition is not just about economics but also serves as a capability multiplier and a security resource, shaping the distribution of capabilities and altering the existing power structure. Cutting-edge technologies are evolving at an unprecedented pace, changing the distribution of states' capabilities that aim to control these finite power sources for relative gain. Historically, economic competition between global powers has often been characterised by technological rivalries from World Wars to the development of the Bretton Woods system to the space race during the Cold War. Technological innovation has been a driving force behind shifts in global power. Just as nuclear capability defined the power race of the 20th century, DeepSeek represents a modern *Sputnik moment*, igniting a new era of strategic and technological rivalry between the US and China.

The US-China race to dominate AI-driven industries mirrors past rivalries with far more extensive economic implications and strategic ends. It has the potential to reshape all the sectors and redefine the global economic structure; therefore, it is instrumental in reshaping the economic strategies and foreign policies of these competitors. It essentially influences supply chains by defining logistics and demand forecasts, increasing the effectiveness of global supply networks, and shaping the geographic redistribution of production. Outsourcing and mechanisation, with the help of machines and computer technology in production and beyond, have eliminated the importance of human resources and made data, algorithms, and technology new factors of production and the economy. Nevertheless, AI's transformative role is not limited to enhancing productivity and efficiency; it is fundamentally altering the functions and future course of global markets and has remarkably evolved into a vital component that escalates both technological and geopolitical competition between these tech rivals.

China's deployment of AI to address global digital governance challenges undermines US National interests by promoting tech nationalism. The Trump administration, with its America First rhetoric, manifested economic nationalism by banning exports of technology to China and imposing trade restrictions to cripple Chinese technological advancement. The US, fearing alienation, supports Silicon Valley giants and encourages technological innovation through national policies such as the CHIPS and Science Act, [1] and strengthens domestic semiconductor manufacturing. Correspondingly, China, guided by self-help logic, developed its own LLM, DeepSeek, to demonstrate its adaptive strength. China not only subsidised AI development and other cutting-edge technology industries but also backed them with robust financial policies and long-term administrative strategies. The Chinese AI plan (2017) promoted indigenisation by integrating academic institutions with industry to decrease dependency on foreign technology while expanding its global footprint in underdeveloped states. It has integrated AI into its national development strategies, including the Next Generation AI Development Plan, positioning itself to be a global leader in AI by 2030.[2]

Owing to these fast-paced changes in the industrial sectors, the global financial system has been compelled to accommodate state and non-state actors operating in different currencies, e.g., China's digital Yuan, and to adapt to technological integration into trade corridors and supply chain dynamics – enabled by AI.

AI is primarily identified as a strategic asset and significant power element. It is integrated across different industries, including manufacturing, trade, and finance. It is pertinent to assess its impact on economic power strategies by analysing key policies, investments, and international partnerships, and to determine whether this technological war would alter the future of the global economy and global order.

Given the US-China economic strategies in critical industrial sectors (semiconductors, digital payments), this study argues that AI and its enabled economic sectors are the new forms of relative powers, wherein states' primary concerns are not profit or prosperity; instead, they see it as an element of state power that they can leverage against their rivals in relative terms. They adopt AI to ensure they do not fall behind their competitors. It hypothesises that 'states seek relative, not absolute, gains from AI technologies' and answers the question 'how AI-enabled geoeconomic sectors alter the distribution of capabilities, triggering intensified competition between the US and China?' It also contends that AI-driven policies shape US-China rivalry and steer the course of global economic governance and technological diplomacy. Both states are strategically deploying AI to bolster their economic power in a zero-sum logic, thereby influencing global market dynamics.

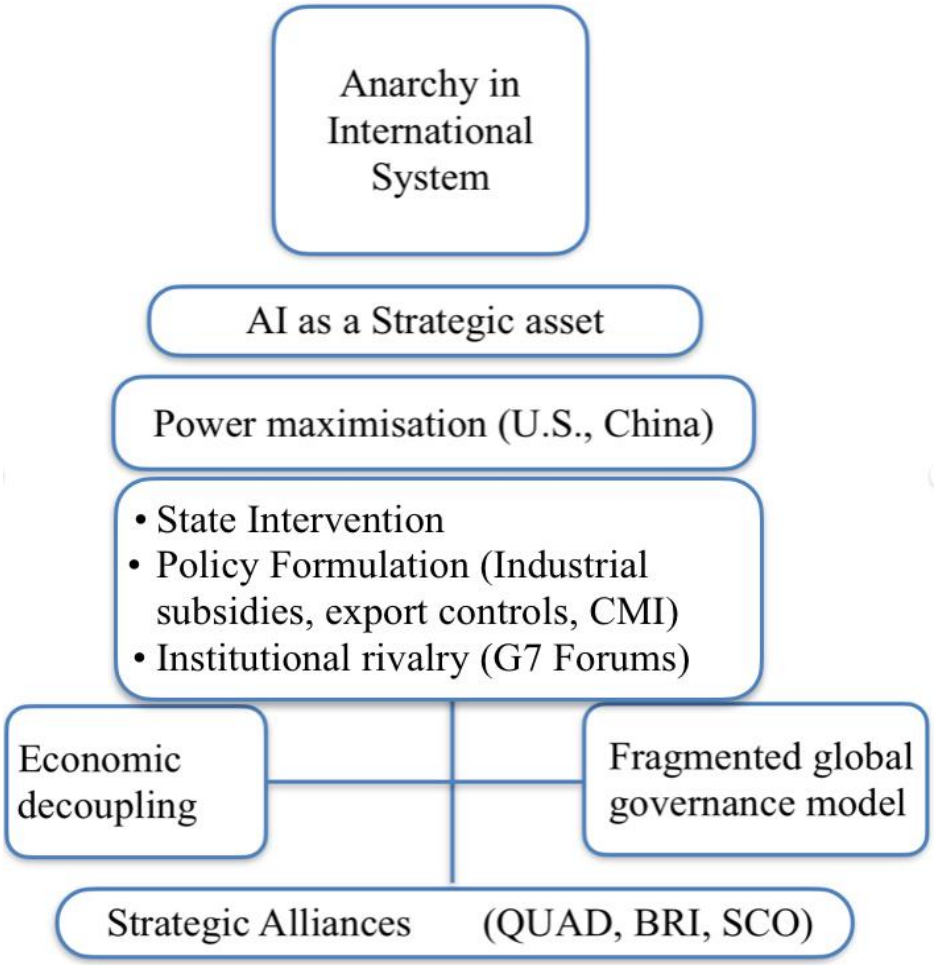
Theoretical Framework

The US–China rivalry is examined through the neorealist theoretical framework, as AI increasingly shapes the global economy and geopolitics within a multiplex world order. Neorealism provides the most appropriate lens for understanding AI's dual role as both a strategic resource and an instrument of power. This conception is extended into geoeconomics, where trade, sanctions, investment, and technology serve strategic purposes, and where power politics using economic tools bring relative gains, such as the US export restrictions on Chinese semiconductors, which indicate a strategic attempt to contain China's rise and preserve American dominance beyond military power to economic and technological spheres. In line with neo-realist assumptions, this study hypothesises that 'states seek relative, not absolute, gains from AI technologies' and answers the question 'how AI-enabled geoeconomic sectors alter the distribution of capabilities, triggering intensified competition between the US and China?'

Neorealism primarily holds that the anarchic structure of the international system compels great powers to act as power maximisers, with hegemony as their ultimate goal.[3] On the other hand, defensive realists believe that states seek to maximise security to balance against rivals and preserve sovereignty and strategic autonomy.[4]

It can therefore be assumed that tech competition in AI and related economic spheres is not merely economic and absolute, but somewhat relative and zero-sum, with the potential to alter the distribution of power. The offensive strand of neorealism reflects the US approach to monopolising AI, data, and related products to maintain the status quo. Silicon Valley tech oligarchs believe in widening the capability gap between the US and its peer competitor, China.[5] It can be assessed from the 2017 and 2022 US National Security Strategies under Presidents Trump and Biden, respectively, which indicate bipartisan consensus on China. On the contrary, China, guided by self-help logic, develops its own indigenous technologies (Chips, LLMs, supercomputing, etc.) to ensure its technological sovereignty.

Figure 1: Showing AI in Great Power Strategic Calculus: A Neorealist Lens



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Additionally, power balancing is reflected in the formation of technology-centric blocks. The US-Japan-CHIPS Act and the Netherlands semiconductor alliance serve as prime examples of this delicate balancing act. At the same time, China's AI collaborations and DSR reflect resistance to the establishment of parallel domains of digital influence.[6] Third, the AI era exacerbates the techno geoeconomic security dilemma, a defining neo-realist notion whereby states view other states' innovations as possible dangers, especially when it comes to autonomous weapons, cyber warfare, and surveillance, which hastens decoupling of technology and strategy, and forges a vicious cycle of mistrust between these actors.[7] Such competition manifests the quest for power maximisation, with each side hardening supply-chain security, semiconductor superiority, and advancing competing digital currency networks. Henceforth, the neo-realist lens also justifies sectoral developments as manifestations of strategic positioning, including supply chain reconfigurations, digital governance disputes, and semiconductor chokepoints. Power politics, national interest, and the logic of relative advantage are driving the rise of techno-economic blocks and the erosion of global economic convergence, which are not anomalies or short-term setbacks to international integration.[8] Therefore, from a neorealist perspective, states adopt AI and its enabled economics to ensure they do not fall behind their competitors, hence reflecting the extension of geopolitical rivalry into economic and technological domains.

Methodology

This research uses a qualitative, case-study design grounded in neorealist theory to explore the influence of AI and geoeconomic tools on US-China strategic competition. It explores how both states use AI, semiconductors, digital finance, and cloud/5G infrastructure as strategic assets, using process tracing, comparative policy analysis, and sector-specific case studies. The analysis is based on primary policy documents (the US CHIPS Act, BIS export-control filings, the 14th Five-Year Plan in China), official speeches and strategic communications, think-tank reports (RAND, CSIS, OECD), and trade network data. Three dimensions of rivalry, including semiconductors, digital currency systems (SWIFT vs e-CNY/CIPS), and cloud and 5G ecosystems, are examined, as these play a critical role in influencing techno-industrial power and security. Triangulating data from primary and secondary sources enhances the validity of this research. Nevertheless, it encountered certain limitations related to classified information and dynamically changing technology; systematic sourcing and cross-checking, however, provide reliable, theory-based explanations of strategic behaviour and relative-gains rationality within the AI-driven global order.

Literature Review

AI has evolved from innovative to an essential instrument of global power politics, particularly shaping US–China competition. Along with deepening cooperation in global innovation ecosystems, competition has expanded beyond traditional military domains into geoeconomics, including semiconductors, data governance, financial technology, and supply-chain control. The following literature seeks to analyse the AI-geopolitics nexus and its impact on the economic policies of these tech rivals. These actors have developed AI strategies that respect their specific political and technological infrastructures to pursue national objectives.

Most recent research underscores AI's role in restructuring global power hierarchies. Expanding on this, China's AI discourse in the military domain, revealing that US competition shapes Beijing's defence and innovation strategies and demonstrating that technological development is deeply embedded in the state's strategic posture.[9] The US, as a hegemonic power, seeks to maintain strategic stability amid disruptive technological change. In this regard, classical and structural realists like Waltz and Gilpin stress that states seek relative gains in anarchic order – this logic has been manifested in AI competition.

While economic interconnectedness has increased significantly, global economic competition is growing. China's actions towards US export controls reveal that Washington's technology ban has fuelled China's pursuit of semiconductor self-sufficiency and digital sovereignty.[10] The future of AI will change the geopolitical landscape, leading to an escalation of bifurcation between techno-liberal and techno-authoritarian choices.

Besides these speculations, literature also explores ethical and philosophical underpinnings. Kissinger and Schmidt (2021) conceptualise AI as an inflexion point in human civilisation that challenges cognition and strategic rationality, and Crawford (2021) contends that AI is embedded in sociopolitical systems, rendering it a ubiquitous source of power that is changing the principles of statecraft in global governance.[11]

The intensifying technological rivalry between the US and China has been described as a ' technological war', where dominance in AI is seen as pivotal to determining twenty-first-century hegemony. Similarly, there is fierce competition between Chinese and American Silicon Valley in the field of AI, whereby the latter, which once led the AI race, is being challenged.[12] China's vast data resources, state-backed capital, and digital infrastructure have accelerated its AI advancements, challenging Silicon Valley's long-held dominance.[13]

Goldstein (2020) argues that US–China technological rivalry reflects enduring strategic distrust, positioning AI as a new domain of great-power competition reminiscent of Cold War bipolarity.

This corresponds to the idea of weaponised interdependence introduced by Farrell and Newman (2019), in which global production and data networks are transformed into instruments of coercive statecraft.[14] Likewise, Segal (2020) and Allen and Chan (2017) emphasised that technological infrastructures that were once viewed as neutral vehicles of globalisation have been securitised as instruments of geopolitical gains.[15]

In discourse, these empirical advances support the neorealist assumption that anarchic systems pursue relative, not absolute, benefits. Allison (2017) views this rivalry, believing that new technologies will accelerate shifts in power dynamics under the Thucydides Trap. In this context, AI is viewed as a driver and an extension of the current global geopolitical landscape.

In contemporary scholarship, geoeconomics is increasingly regarded as the economic dimension of geopolitical strategy rather than an isolated analytical domain. States deploy trade policies, sanctions, technology restrictions, and financial impact to achieve strategic ends, reflecting the translation of power politics into economic instruments. From a neorealist standpoint, these tools reinforce the logic of relative gains and competition under an anarchic international structure. Hence, the current AI-driven rivalry between the US and China exemplifies that the synthesis of technological and economic interdependence is weaponised for structural advantage. Therefore, this research addresses the gap by interlinking AI, industrial policy, and fintech architecture from a neorealist perspective. To that end, the US-China AI competition presents logics of strategic balancing and relative-gains logic defining the futuristic world order.

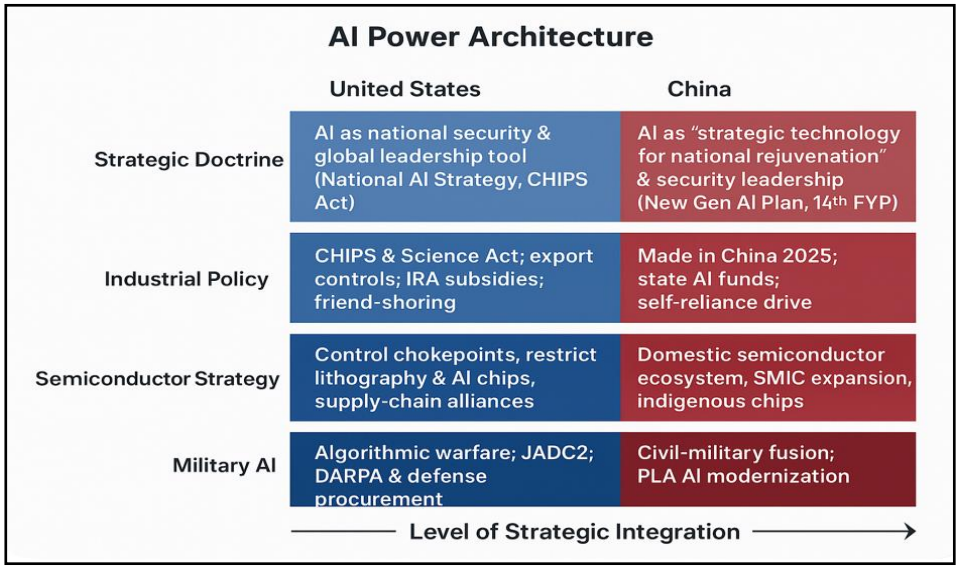
AI and the New Global Divide: Market Power and Fragmented Interdependence

As neorealism predicts, the persistence of anarchy compels major powers to securitise critical sectors of interdependence, transforming economic linkages into arenas of strategic rivalry. While globalisation once implied convergence, the US–China contest has reconfigured interdependence into a hierarchy of high-risk and low-risk domains. Subsequently, the current era witnessed 'fragmented globalisation', as goods with low security remain globally integrated. At the same time, the tech sector has split into American and Chinese blocs, each with its own standards and governance approaches. The interplay of AI-powered markets and great power rivalry indicates the potential economic benefits of achieving their national objectives. The global impact of AI on the economy predicts that business spending to adopt AI in existing business operations, and supply-demand would have an incremental global economic impact of US$19.9 trillion through 2030 and drive 3.5% of global GDP in 2030.[16]

Contemporarily, US technology corporations such as Amazon and IBM remain central in shaping AI markets and entailing dependencies through outsourcing via cloud services and AI offers.

On the contrary, investment has changed China's competitive landscape, as rapidly growing companies such as Tencent and Alibaba are beginning to exert their influence worldwide. For instance, Alibaba's cloud computing division has been dominating the global cloud services market, demonstrating China's growing role in AI industrial growth.[17] Similarly, China's ability to implement intelligent algorithms in international e-commerce is reflected in AI-powered platforms like Temu, launched by PDD Holdings, which address data-driven pricing, consumer targeting, and supply chain optimisation challenges that Western competitors such as Amazon face.[18]

Figure 2: Comparative AI Ecosystem and Strategic Influence: US vs China



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US Digital Strategy

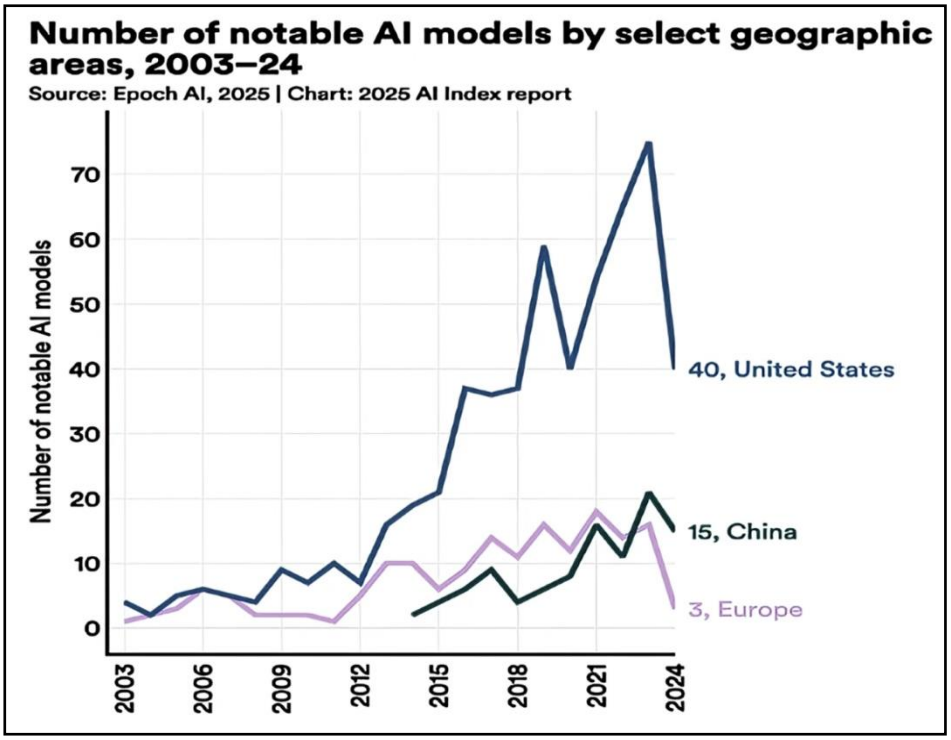
The US has exerted significant influence on AI development through diverse strategies and funding, including involvement from private companies, academic institutions, and the government. Currently, major IT companies, including Google, Microsoft, and IBM, are leading the development of AI across a variety of fields. The US government has backed such endeavours through the National AI Initiative Act and the CHIPS and Science Act. These policies aim to promote interdisciplinary AI research, revive the domestic semiconductor industry, and strengthen the AI talent pipeline for national sustainability and competitiveness.

The US' national techno-strategies embrace the Liberal Innovation Order. While largely driven by free markets and private companies, the US 'liberal innovation order was altered by the Trump administration to align economic policy with national security.[19]

Trump-era policies framed this field by shaping how AI was used, as the administration introduced several policies to restrict China's access to modern technologies that enable AI.[20] Most significantly, the ECRA of 2018 gave the Department of Commerce the authority to impose additional restrictions on emerging and foundational technologies.[21] This instrument has been used against firms such as Huawei, SMIC, and SenseTime, resulting in export decisions that prevent Chinese companies from obtaining Nvidia GPUs and ASML lithography equipment.

These limits provided the framework for the wider export controls rolled out by the Biden administration. At the same time, Trump introduced the 'Clean Network Initiative', encouraging allies not to allow Huawei and ZTE 5G technology in their countries.[22] It was part of the early efforts between the Quad partners to support Open RAN and undersea cable initiatives with Australia and Japan, as these could limit China's impact in the region.[23] At the federal level, Executive Order 13859 from 2019 required prioritising AI research, data exchange, and workforce training.[24] To further promote defence modernisation, the Department of Defence set up the Joint Artificial Intelligence Centre (JAIC). As a result of the China Initiative, the Department of Justice focused on US-China cooperation in academic projects, leading to investigations into and limitations on several shared research opportunities.[25]

Figure 3: Quantitative Comparison of AI Models across Key Global Actors



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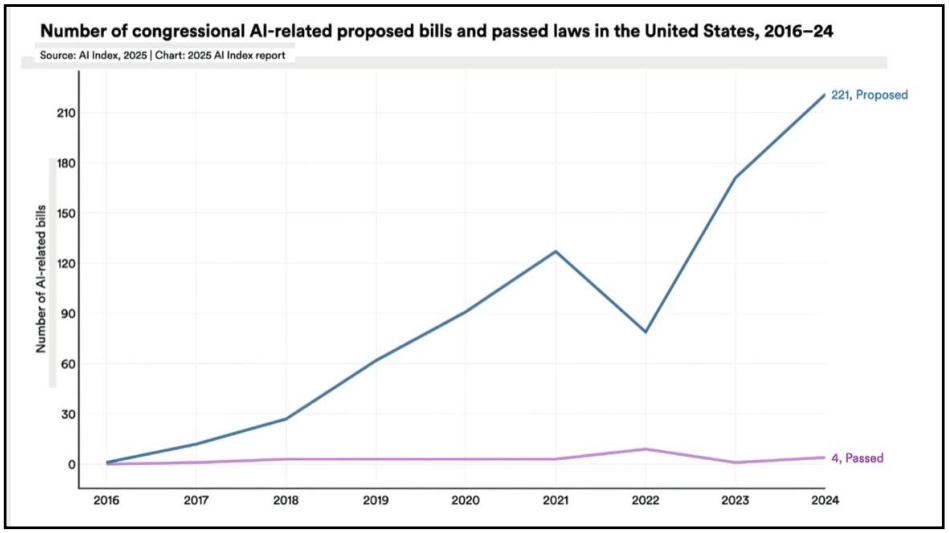
Laying the groundwork for economic decoupling was also carried out during Trump's administration through tariffs and supply chain diversification. After the imposition of Section 301 tariffs on US$370 billion in Chinese goods, US firms redirected production to countries including India, Vietnam, and Taiwan. This policy became formal with the CHIPS and Science Act. Besides, President Trump pushed for liberal values online through the G7 and the OECD to combat China's efforts to control the internet and digital rights and regarded AI and digital development as critical components of competition. The government's active role helped boost liberal innovation, ultimately dividing the global digital sphere. As a result, the US adopted a strategy to withstand globalisation, placing greater emphasis on outpacing China in technological achievements.

Figure 4: US AI Policy Landscape: Bills and Laws Enacted



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The Trump administration has emphasised national security and economic interests over traditional free-market principles of open trade. The US displayed its protectionist policies through intensified scrutiny of Chinese tech firms Huawei and ZTE, as well as through the establishment of strong export restrictions on technology and AI products bound for China.[26] This ideological divergence aligns with the ongoing struggle for leadership in the emerging AI revolution. Moreover, two aspects that contributed significantly to the G7 monetary fluctuations by the Bretton Woods institutions and adaptability are key to the present economic world, powered by AI.[27]

Tech Strategy of China

AI has become a critical tool for China. Under the Triple Helix, the interaction among academia, industry, and government, China has become the most significant rising technological contender, mirroring the Cold War-like challenge of the Soviet Union in the information and communication technology domain in the twenty-first century. The rivalry is not over arms but over Information and Communication Technology (ICT) dominance, particularly driven by AI. Remarkably, despite the AI industry's early stage, Chinese companies such as Alibaba, Tencent, and Baidu are investing heavily to compete globally. These are the Next Generation AI Development Plan and the Open Tianchi Initiative, both in China, at the forefront of AI by 2030, aimed at boosting its economic power. The state is heavily investing in universities, research centres, and IT companies through subsidies to promote local talent in AI, along with AI-enabling technologies like 5G and cloud computing, and to attain semiconductor ecosystem self-sufficiency. Moreover, AI is deployed in surveillance and social control systems, which adhere to China's cyberspace sovereignty and security schemes.

Beijing supports its agenda with state-focused technological ideas. AI is labelled as an economic tool and means of monitoring society in the country's Made in China 2025 and New Generation AI Development Plans (2030). Following this initiative, China's initiatives with Central Asia and its partnerships in Africa and Latin America revealed that Beijing is promoting development while maintaining control over its cyberspace, information, and digital rules. For instance, states using Chinese digital technologies tend to introduce a Chinese version by conducting mass surveillance and directing how data is controlled. [28] Being independent in semiconductors is their top priority: China's SMIC launched a 7 nm process without new lithography, while Huawei introduced its 5G-enabled chip in the Mate 60 Pro.[29] Likewise, the Digital Silk Road (DSR) promotes Chinese 5G, data centres, and E-commerce overseas is all guided by the notion of 'cyber-sovereignty'.

China's AI economy combines the latest technology, security concerns, and ideologically driven policies rather than relying solely on the government's industrial plans. Utilising its long-term annual initiatives, Beijing regards AI as valuable for growth and an essential tool to strengthen central authority, prioritise economic self-reliance, and shape global technology rules guided by China's values. Under Xi Jinping's leadership, China has strengthened its authority over data, internet services, and future research. The recent 14th Five-Year Plan, the Science and Technology Self-Reliance Drive, and the National Data Bureau collectively place great emphasis on developing AI chips, advancing quantum computing, and launching 6G.[30] China has expanded AI development in its Digital China Strategy, making data infrastructure and AI algorithms the basis for managing surveillance, automation, and choices made in state agencies.

Recent strategic moves by China involving DeepSeek AI technology, along with US export restrictions on AI chips, are creating unpredictable changes to existing AI economic predictions. The US sanctions resulted in massive losses in Nvidia's market value of billions of dollars. They enabled Chinese firms like DeepSeek to advance AI with minimal resources, thereby reducing market demand for expensive, high-performance chips.[31] DeepSeek demonstrates that competitive AI breakthroughs can be achieved with minimal computing resources, thereby shaping the evolution of research and development approaches.

At the industrial level, China ensures that Huawei, SMIC, Baidu, and SenseTime have access to government support, incentives, and financing. In response to tighter US trade restrictions, Beijing continues to strengthen its role in the chip industry by utilising the Third China Integrated Circuit Industry Investment Fund (Big Fund III), with over US$47 billion set aside for this year.[32] The Mate 60 Pro's debut in 2023, which used a chip made by Huawei despite US sanctions, signified both strength and a protest against technological constraints.[33]

Above all, DSR, which stems from the Belt and Road Initiative, remains dedicated to bringing Chinese 5G technology, smart metropolitan areas, cloud computing services, and e-government solutions to states worldwide. The following year, China's initiatives with Central Asia and its partnerships in Africa and Latin America revealed that Beijing is promoting development while maintaining control over its cyberspace, information, and digital rules. For instance, states using Chinese digital technologies tend to introduce a Chinese version by conducting mass surveillance and implementing data control strategies.[34] In addition, through laws such as the Data Security Law (DSL, 2021) and the Personal Information Protection Law (PIPL, 2021), China ensures that the state controls all data generated within its borders. The Cyberspace Administration of China (CAC) recently released AI Regulation Guidelines to support content regulation, transparency in algorithms, and the alignment of generative AI systems with socialist core values.[35] This indicates that AI is being integrated into China to manage its security and regulations, which differ vastly from those of liberal democracies.

Strategic Sectors and the Rise of Dual Tech Economies

Neorealism posits that states prioritise survival and relative power over cooperation in an anarchic system. This logic explains why technological domains such as semiconductors, digital payments, and cloud-based AI services are presently at the faultline of the US–China rivalry. These comprise strategic sectors that anchor two diverging techno-economic spheres. The US export controls and 'friend-shoring' incentives are redirecting advanced chip capacity toward allied fabs, while China's Big Fund pours billions into indigenous 7 nm nodes and next-generation lithography.

The Semiconductor Industry: AI Chips and Strategic Decoupling

The semiconductor industry supports the infrastructure of AI technologies, as their core engines are designed to perform on chips. Semiconductors serve as the backbone of AI systems across industries such as automotive, telecommunications, and healthcare. Taking the lead in controlling this technology is key to China's drive to surpass the US and to keep a competitive edge.[36] Thus, the US continues to emphasise maintaining its position at advanced levels of semiconductor design and manufacturing, as its tech companies, such as Intel, NVIDIA, and Qualcomm, are globally renowned for chip design; however, due to the supply chains that support the US's reliance on fabrication plants in Taiwan, particularly TSMC.[37] The government has taken initiatives such as the CHIPS Act to incentivise domestic semiconductor manufacturing.

In contrast, the Chinese strategy appears to reduce its reliance on foreign chipmakers by increasing investment in domestic chipmakers. [38] The Chinese government, through programmes such as Made in China 2025, is rapidly building the country's semiconductor production capacity; companies such as SMIC are advancing in chip production. Fearing that ASML's advanced technology would significantly improve China's technological and military capabilities, the US and its allies have taken steps to prevent China from using it.[39]

The semiconductor industry plays a vital role in the US-China technological rivalry, particularly because of its importance in AI. AI systems require powerful chips, such as GPUs (Nvidia A100 and H100), tensor processors, and cutting-edge lithography tools from ASML.[40] The US recognised the necessity and passed the CHIPS and Science Act (2022), allocating over US$52 billion to increase domestic chip production and bolster US technology security.[41] At the same time, it banned trade in advanced AI chips and equipment that China depends on. They primarily aim to prevent other states from overtaking the US in key technologies essential to military and civilian purposes. In consequence, China is leaning more towards self-sufficiency with significant government investments in SMIC (Semiconductor Manufacturing International Corporation), Huawei's Kirin processors, with the ambition of its 'Made in China' 2025 policy. It exemplifies neorealism's principle that states seek security and relative power by controlling critical capabilities.

Digital Financial Systems, Including e-CNY and SWIFT

AI is significantly impacting the financial sector's economic competition. It is traditionally believed that the US leads the world in finance, partly based on the dollar as a reserve currency and the presence of SWIFT[42], Visa, Mastercard, etc.[43] However, with AI assistance and digital currency, China is rapidly building its financial system to bypass Western-controlled banking systems.

In cross-border transactions connected to the Belt and Road Initiative (BRI), Beijing is using the e-CNY and integrating it with popular platforms such as Alipay and WeChat Pay, aided by fraud detection, smart contracts, and continuous analysis of financial processes. Washington's influence on the world economy, especially when using unilateral sanctions, has consequently been reduced.[44] Neorealists view China's approach to fintech as a way to protect itself from foreign influence and increase its power. Having both a US dollar-based system and a Chinese digital financial system in place is paving the way for the economy to split into two groups. Thus, the divide reflects the weaponisation of interdependence, as both powers use financial infrastructures, payment networks, and currency systems to influence and shape dependencies, and to limit each other's strategic autonomy, deepening the economic bifurcation of the international order.

AI Cloud Infrastructure and Keeping Information under Control: Diverging Standards

The development and use of cloud infrastructure for AI are major areas of economic competition between the US and China. These leading global cloud firms-AWS, Google Cloud and Microsoft Azure-come from the US and favour the idea of openness and following Western data governance rules.[45] Alternatively, Chinese businesses such as Alibaba Cloud, Tencent Cloud, and Baidu are growing rapidly, especially in the Global South through DSR.[46] They combine cloud-based services with tools for watchful surveillance and AI processing with smart administration approval, matching China's ideas about controlling cyberspace. China is focused not only on trade but also on promoting strict state control over data, unlike the US approach. These have created digital spaces, each following separate technical rules and principles of governance and relying on distinct economic partners. The separation of cloud-based data systems asserts sovereignty over critical technology and advances national interests by advancing global decoupling, thereby elucidating neorealist assertions.

Findings and Discussion: The Unfolding of AI Power in Global Economic Order

The findings reveal that the unfolding of AI power redefines the structure of the global economic order by integrating technological competition into the logic of state power. However, this research extends classical neorealism by demonstrating that power maximisation primarily operates through the geoeconomic and technological domains. AI integration into economic strategies is not only a complex interplay of incorporating these technologies but also holds strategic significance. The rapid development of AI reveals the states 'desire to engage in a power struggle and to enhance their economic influence. Hence, AI-driven transformation challenges the traditional military-centric realism, positioning technology as the decisive currency of global power.

Impact on Industry Transformation

The rise of AI and technological competition fundamentally alters the global economic order, driving substantial transformations across multiple domains. Firstly, AI and technological developments are potent drivers of innovation across industries; they reshape production modes, global trade relations, and competitive economic landscapes, leading to further disruptions.[47] Any state leading in AI development and its regulations would have an edge in reshaping the future of global economic leadership.

The current AI-driven wave of innovation is transforming manufacturing supply chain management, production process planning, and the processing of goods flow in logistics.[48] It implies that industrial revitalisation improves efficiency, automation, and customisation, rearranging global production networks and international trade flows. The advancement of AI and digital technology is driving data-based economies and digital exchanges. It is, therefore, the evolution of new domains that attracts diverse terms of trade, intellectual property constraints, and regulations that not only disturb but also influence global political and economic relations.[49]

AI plays a significant role in the global market, driving socioeconomic changes across trade, technology, and economic partnerships. For instance, the current bilateral trade war between the US and China has notably identified AI as a weapon in global trade wars. There are numerous rationales behind it, but national security concerns and issues regarding the intellectual property rights of AI and 5G technology owned by Chinese companies, such as Huawei, in the U.S. have shifted international trade patterns and technology value chains.

Regarding alliance strengthening through technology transfers, the relationship between the EU and the US has improved through cooperation on AI research, policies, and regulatory frameworks. Its goal is to define global standards for AI industries and their governance, shape international economic policy decision-making, and create a transatlantic economic coalition committed to responsible AI.

Likewise, the semiconductor market, a key component of AI technologies, has not been immune to these shocks. Industry giants include TSMC (Taiwan Semiconductor Manufacturing Company) and Intel, and disturbances such as the chip war symbolise the nature of the techno-political ecosystem and the necessity of developing AI to fuel demand for superior semiconductors, as well as their impact on the global market.

There is also a growing number of digital trade agreements that include AI-related provisions; for instance, the USMCA contains provisions regarding AI application in trade policies and economic relations.[50]

The extensive business transition to the digital economy also increases exposure to cyber risks; thus, dominant states capable of harnessing AI to strengthen their cybersecurity can protect their economies and reduce their susceptibility to cyber espionage and terrorism.

Impact on Monterey Order

Economic activities between the US and China significantly impact the international monetary order.[51] China's prominence in international trade and its efforts to establish trade routes, financing institutions, and digital currency systems threaten the status of the US-dominated economic system, with the US dollar as a reserve currency.[52] China is rising economically through its strategic moves, including the establishment of the Asian Infrastructure Investment Bank (AIIB), which competes with US-led financial systems and Bretton Woods organisations, such as the IMF and the World Bank. This Chinese-led bank confronts Western-led financial institutions by delivering better conditions for developing nations through its purpose of meeting Asian infrastructure requirements.

The BRI works in tandem with this initiative to build Chinese influence, undermining traditional US-led economic systems. The governing structures built into the Bretton Woods institutions enabled them to track foreign economic and financial volatility, ensuring adjustments to states' financial standing. In correspondence, the current AI developments and the race to regulate AI have far-reaching implications for the global geoeconomics strategy. In correspondence, AI market strategies are a key domain where these ideologies clash: the Chinese approach to developing and regulating its enterprises is highly centralised. At the same time, the Americans prefer open, market-driven models.[53]

Moreover, this rising tide of techno-nationalism is pushing states to seek control over critical sectors of the global economy rather than pursuing productivity independently. Each US move accelerates China's drive for self-reliance, while every Chinese innovation heightens US concerns, perpetuating a cycle of technological rivalry. This competition is expected to intensify across consumer industries, with strategic focus on AI, semiconductors, quantum technologies, and biotechnology.

Policy Implications for Middle Powers

The intensifying US–China AI competition presents both strategic opportunities and constraints for middle powers. As AI becomes embedded in trade, defence cooperation, cybersecurity frameworks, and digital standards, states such as India, South Korea, Japan, and Pakistan might face growing pressure to accept risks to economic and security vulnerabilities in technological alignments.

It poses ramifications for the global alliance system, since coalitions have been essential to the US' sustained economic superiority. Alliances such as the US-led 'Quad', comprising Japan, India, and Australia, and China's BRI are strategic initiatives to advance their policy objectives and counter adversaries' expansionist endeavours. Japan's SoftBank Group has invested in AI manufacturing startups in the US, Europe, and China, enabling technology exchanges and boosting global economic integration.[54]

Similarly, due to repeated insistence on national security, the role of global institutions has diminished, and States such as the US, the EU, and Japan have formed groups to create distinctive tech regulations among themselves. Individually, these distinctions suggest that the world economy will be divided into middle powers, while making a choice (or facing a challenge) between or using two distinct systems for technology, finance, and regulation.

While the EU, India and Japan would try to balance their relationships, various developing economies will prioritise China. In the face of this fierce competition over liberal globalisation, hardware, protocols, and rules align to form two opposing worlds for technology-led growth and partnerships. In the absence of confidence-building measures, Sino-US relations will persist and reshape numerous aspects of global trade and governance. In this regard, middle powers increasingly adopt hedging strategies, diversify their supplier base, pursue indigenous digital industrial bases, and align to safeguard sovereignty in a bifurcating techno-order.

Future Research

This research reinforces the concept of classical neorealism, arguing that power struggles are not solely determined by military forces but also by non-military factors such as AI regulation, data manipulation, and digital infrastructure. This research advances neorealism into techno-realism by demonstrating how the US and China use AI policies, semiconductor supply chains, and digital norms to gain relative advantage. The policy implications of these dynamics for the diplomacy of developing states and middle powers are also considerable, as they face increasing pressure to negotiate among competing digital blocs while maintaining strategic balance.

Conclusion

To conclude, the US-China competition for AI leadership underscores the primacy of technological dominance for future economies. This rivalry reflects structural realist behaviour, where technological dominance and relative advantage outweigh cooperative or liberal-institutional incentives. In the face of techno-nationalism, AI's contribution to semiconductor industry growth reveals the powerful influence of states' economic and foreign policy orientations.

AI has become a decisive factor in transforming power distribution patterns and reshaping the balance of power among technology-driven states. It served as a strategic advantage in dominating the digital economy and in redefining global economic and strategic hierarchies.

Amid these opportunities and risks of AI in the global economy, supply–demand dynamics are key to understanding national power in an anarchic system. As the US and China safeguard their technological domains and vie for leadership, a digital iron curtain is emerging, dividing the world into competing American and Chinese tech blocs. The US led an economic conference after World War II, which led to the establishment of institutions to guide policies for the world economy. Subsequently, the contemporary epoch epitomises the endeavours of major technological powers competing in AI advancements and regulation, creating international benchmarks and frameworks for its ethics and standards for 5G networks.[55] Correspondingly, like its financial control over the dollar, the US is currently utilising technology to advance its geoeconomic influence and align growth with its national strategy. AI signifies a new Sputnik moment, inciting strategic competition in which changing power dynamics force national leaders to focus on national security and technological supremacy. This competitive rationale shapes global AI policies in both the U.S. and China, demonstrating that the quest for power and survival still predominates over ideals of cooperation, with states prioritising relative gains and strategic advantage under an anarchic system.

References

[1] U.S. Congress, "H.R. 4346—117th Congress (2021–2022): Supreme Court Security Funding Act of 2022," *Congress.gov*, August 9, 2022, https://www.congress.gov/bill/117th-congress/house-bill/4346.

[2] Graham Webster, Rogier Creemers, Elsa Kania, and Paul Triolo, "Full Translation: China's 'New Generation Artificial Intelligence Development Plan '(2017)," DigiChina, August 1, 2017, https://digichina.stanford.edu/work/full-translation-chinas-new-generation-artificial-intelligence-development-plan-2017/.

[3] John J. Mearsheimer, The Tragedy of Great Power Politics (New York: W.W. Norton, 2001), 21 and 40.

[4] Kenneth Waltz, Theory of International Politics (Reading, MA: Addison-Wesley, 1979), 126. Also see Kenneth N. Waltz, "Realist Thought and Neorealist Theory," Journal of International Affairs 44, no. 1 (1990): 21–37, https://www.jstor.org/stable/24357222.

[5] Peter Thiel, "Competition Is for Losers," Wall Street Journal, September 12, 2014, https://www.wsj.com/articles/peter-thiel-competition-is-for-losers-1410535536.

[6] Gregory C. Allen and Emily Benson, "Clues to the U.S.-Dutch-Japanese Semiconductor Export Controls Deal Are Hiding in Plain Sight," Center for Strategic and International Studies (CSIS), March 2023, https://www.csis.org/analysis/clues-us-dutch-japanese-semiconductor-export-controls-deal-are-hiding-plain-sight.

[7] Maria Papageorgiou, Muhammed Can, and Alena Vieira, "China as a Threat and Balancing Behavior in the Realm of Emerging Technologies," Chinese Political Science Review 9, no. 1 (April 2024): 441–82, https://doi.org/10.1007/s41111-024-00248-0.

[8] Ejitu N. Ota and Chinyere S. Ecoma, "Power and National Interest in International Relations," European Journal of Humanities and Social Sciences 2, no. 4 (July 2022): 23–30, https://doi.org/10.24018/ejsocial.2022.2.4.268.

[9] Zeng, Jinghan. 2025. "The US Factor in Chinese Perceptions of Militarized Artificial Intelligence." International Affairs 101 (2). https://doi.org/10.1093/ia/iiae323.

[10] Rahman, Mizanur. 2025. "Tech Supremacy and Economic Warfare: The U.S.-China Trade Battle in the 21st Century." Multitech Journal of Applied Sciences (MJAS) 2 (4): 249–74. https://doi.org/10.59890/k690qt50.

[11] Crawford, Kate. 2022. "Atlas of AI: Power, Politics, and the Planetary Costs of Artificial Intelligence." Perspectives on Science and Christian Faith 74 (1): 61–62. https://doi.org/10.56315/pscf3-22crawford.

[12] Danilin, Ivan V. 2021. "The U.S.-China Technological War." Russia in Global Affairs 19 (4). https://doi.org/10.31278/1810-6374-2021-19-4-78-96.

[13] Paz, Bárbara Jennifer. 2020. "Kai-Fu-Lee (2019): AI Superpowers—China, Silicon Valley and the New World Order." AI & SOCIETY, June. https://doi.org/10.1007/s00146-020-00991-3.

[14] Farrell, Henry, and Abraham L Newman. 2019. "How Global Economic Networks Shape State Coercion." International Security44 (1): 42–79. https://doi.org/10.2307/26777882.

[15] Segal, Michael. 2019. "A More Human Approach to Artificial Intelligence." Nature 571 (7766): S18–18. https://doi.org/10.1038/d41586-019-02213-3.

[16] Newsroom, "IDC: AI Will Contribute $19.9 Trillion to Economy through 2030," Fierce Network, September 17, 2024, https://www.fierce-network.com/newswire/idc-ai-will-contribute-199-trillion-economy-through-2030.

[17] Giulia Interesse, "China's Cloud Computing Market – Developments and Opportunities," China Briefing News, June 24, 2022, https://www.china-briefing.com/news/chinas-cloud-computing-developments-and-opportunities/.

[18] Muhammad Nana Trisolvena, Marwah Masruroh, and Yanti Mayasari Ginting, "Product Demand Forecast Analysis Using Predictive Models and Time Series Forecasting Algorithms on the Temu Marketplace Platform," International Journal Software Engineering and Computer Science (IJSECS) 4, no. 2 (2024): 430–39, https://doi.org/10.35870/ijsecs.v4i2.2774.

[19] Brett D. Barkley, "Digital Commons @ DU" (PhD diss., University of Denver, 2021), https://digitalcommons.du.edu/cgi/viewcontent.cgi?article=2911&context=etd.

[20] Jon Bateman, "U.S.-China Technological 'Decoupling': A Strategy and Policy Framework," Carnegie Endowment for International Peace, April 25, 2022, https://carnegieendowment.org/research/2022/04/us-china-technological-decoupling-a-strategy-and-policy-framework.

[21] Elena Lazarou and Nicholas Lokker, "Briefing: European Parliamentary Research Service (EPRS)," European Parliament, 2019, https://www.europarl.europa.eu/RegData/etudes/BRIE/2019/644187/EPRS_BRI(2019)644187_EN.pdf

[22] "The Clean Network Safeguards America's Assets," United States Department of State, December 2020, https://2017-2021.state.gov/the-clean-network-safeguards-americas-assets/.

[23] Kumar, Rajesh, and Aamir Khan. "The Quadrilateral Security Dialogue's Path to Institutionalization: A He and Feng Perspective." Air University (AU), May 8, 2024. https://www.airuniversity.af.edu/JIPA/Display/Article/3768292/the-quadrilateral-security-dialogues-path-to-institutionalization-a-he-and-feng/.

[24] " Executive Order on Promoting the Use of Trustworthy Artificial Intelligence in the Federal Government," The White House, December 3, 2020, https://trumpwhitehouse.archives.gov/presidential-actions/executive-order-promoting-use-trustworthy-artificial-intelligence-federal-government/.

[25] Terri Moon Cronk, "Joint Artificial Intelligence Center Has Substantially Grown to Aid the Warfighter," U.S. Department of Defense, November 18, 2020, https://www.defense.gov/News/News-Stories/Article/Article/2418970/joint-artificial-intelligence-center-has-substantially-grown-to-aid-the-warfigh/.

[26] Meghan Pallardy, "Trump's Tech Wall: Intensifying 'Tough on China 'Policy Approach to Pose Global Risks," Capstone DC, January 2, 2025, https://capstonedc.com/insights/us-china-tech-2025-preview/.

[27] Mbhusari, "The Bretton Woods Institutions Need Revitalizing. Luckily, They Are No Strangers to Reform," Atlantic Council, July 18, 2024, https://www.atlanticcouncil.org/blogs/econographics/the-bretton-woods-institutions-need-revitalizing-luckily-they-are-no-strangers-to-reform/.

[28] Richard Heeks, Angelica V. Ospina, Christopher Foster, Ping Gao, Xia Han, Nicholas Jepson, Seth Schindler, and Qingna Zhou, "China's Digital Expansion in the Global South: Systematic Literature Review and Future Research Agenda," The Information Society 40, no. 2 (February 2024): 1–27, https://doi.org/10.1080/01972243.2024.2315875.

[29] Stephen Ezell, "How Innovative Is China in Semiconductors?" Information Technology and Innovation Foundation, August 19, 2024, https://itif.org/publications/2024/08/19/how-innovative-is-china-in-semiconductors/.

[30] Xinhua News Agency, "Outline of the People's Republic of China 14th Five-Year Plan for National Economic and Social Development and Long-Range Objectives for 2035," 2021, https://cset.georgetown.edu/wp-content/uploads/t0284_14th_Five_Year_Plan_EN.pdf.

[31] Peter Hoskins, "DeepSeek Chinese AI Chatbot Sparks Market Turmoil for Rivals," BBC, January 27, 2025, https://www.bbc.com/news/articles/c0qw7z2v1pg0.

[32] Che Pan, "Tech War: China Doubles Down on Semiconductor Self-Sufficiency Drive with US$47.5 Billion Big Fund III," South China Morning Post, May 27, 2024, https://www.scmp.com/tech/tech-war/article/3264296/tech-war-china-doubles-down-semiconductor-self-sufficiency-drive-us475-billion-big-fund-iii.

[33] Voice of America, "China's Propaganda Victory over US Sanctions: Huawei's Mate 60 Pro," Voice of America (VOA News), September 12, 2023, https://www.voanews.com/a/fact-check-china-launches-propaganda-campaign-portraying-mate-60-pro-as-huawei-s-victory-over-us-sanctions/7265226.html.

[34] Derel Levine, "US Must Win the Battle for AI Supremacy over China: Nothing Less Than the Future of Democracy, Free Expression and Open Markets is at Stake," Asia Times, July 22, 2025, https://asiatimes.com/2025/07/us-must-win-the-battle-for-ai-supremacy-over-china/#

[35] Matt Sheehan, "China's AI Regulations and How They Get Made," Carnegie Endowment for International Peace, July 2023, https://carnegieendowment.org/research/2023/07/chinas-ai-regulations-and-how-they-get-made.

[36] Matan Chorev and Joel Predd, "America Should Assume the Worst About AI: How to Plan for a Tech-Driven Geopolitical Crisis," Foreign Affairs, July 25, 2025, https://www.foreignaffairs.com/united-states/america-should-assume-worst-about-ai.

[37] Emily Weinstein, "The Role of Taiwan in the U.S. Semiconductor Supply Chain Strategy," The National Bureau of Asian Research (NBR), January 21, 2023, https://www.nbr.org/publication/the-role-of-taiwan-in-the-u-s-semiconductor-supply-chain-strategy/.

[38] The White House, "FACT SHEET: CHIPS and Science Act Will Lower Costs, Create Jobs, Strengthen Supply Chains, and Counter China," The White House, August 9, 2022, https://www.whitehouse.gov/briefing-room/statements-releases/2022/08/09/fact-sheet-chips-and-science-act-will-lower-costs-create-jobs-strengthen-supply-chains-and-counter-china/.

[39] Catherine Tan, "Breaking the Circuit: US-China Semiconductor Controls," Foreign Policy Research Institute, September 16, 2024, https://www.fpri.org/article/2024/09/breaking-the-circuit-us-china-semiconductor-controls/.

[40] The Economist, "The Race Is on to Build the World's Most Complex Machine," The Economist, March 12, 2025, https://www.economist.com/science-and-technology/2025/03/12/the-race-is-on-to-build-the-worlds-most-complex-machine.

[41] ICT supply chain. 2024. "Two Years Later: Funding from CHIPS and Science Act Creating Quality Jobs, Growing Local Economies, and Bringing Semiconductor Manufacturing back to America." U.S. Department of Commerce. August 9, 2024. https://www.commerce.gov/news/blog/2024/08/two-years-later-funding-chips-and-science-act-creating-quality-jobs-growing-local

[42] Barry Eichengreen, "Sanctions, SWIFT, and China's Cross-Border Interbank Payments System," CSIS, May 20, 2022, https://www.csis.org/analysis/sanctions-swift-and-chinas-cross-border-interbank-payments-system.

[43] Tobias Adrian, "Artificial Intelligence and Its Impact on Financial Markets and Financial Stability," International Monetary Fund, September 6, 2024, https://www.imf.org/en/News/Articles/2024/09/06/sp090624-artificial-intelligence-and-its-impact-on-financial-markets-and-financial-stability.

[44] Wenbo Lyu, Yueting Liu, Yan Jiang, Hao Su, and Keming Zhang, "E-CNY and Digital Economy in China," Journal of Advance Research in Social Science and Humanities 9, no. 11 (November 2023), https://doi.org/10.61841/g15vgt84.

[45] Fernando van der Vlist, Anne Helmond, and Fabian Ferrari, "Big AI: Cloud Infrastructure Dependence and the Industrialisation of Artificial Intelligence," Big Data & Society 11, no. 1 (March 2024), https://doi.org/10.1177/20539517241232630.

[46] Chunmeizi Su and Terry Flew, "The Rise of Baidu, Alibaba and Tencent (BAT) and Their Role in China's Belt and Road Initiative (BRI)," Global Media and Communication 17, no. 1 (December 2020): 67–86, https://doi.org/10.1177/1742766520982324.

[47] Ozcan Ozturk, "The Impact of AI on International Trade: Opportunities and Challenges," Economies 12, no. 11 (November 2024): 298, https://doi.org/10.3390/economies12110298.

[48] Ibid.

[49] Antony Scott Taubman, "Digital Disruption and the Reshaping of Markets for IP: What This Means for Trade and Competition Policy," in Competition Policy and Intellectual Property in Today's Global Economy, ed. Robert D. Anderson, Nuno Pires de Carvalho, and Antony Taubman (Cambridge: Cambridge University Press, 2021), 283–331.

[50] Alejandra Palacios and Christian Norton, "Trade in a Digital Interoperability Era," Brookings, March 6, 2024, https://www.brookings.edu/articles/trade-in-a-digital-interoperability-era/.

[51] International Monetary Fund (IMF), "Trade Balances in China and the US Are Largely Driven by Domestic Macro Forces," International Monetary Fund, September 12, 2024, https://www.imf.org/en/Blogs/Articles/2024/09/12/trade-balances-in-china-and-the-us-are-largely-driven-by-domestic-macro-forces.

[52] Guillermo, "China's Challenge to the International Economic Order," Foreign Policy Research Institute, January 18, 2024, https://www.fpri.org/article/2024/01/chinas-challenge-to-the-international-economic-order/.

[53] He Li, "The Chinese Model of Development and Its Implications," World Journal of Social Science Research 2, no. 2 (2015): 128, https://doi.org/10.22158/wjssr.v2n2p128.

[54] Bloomberg. 2024. "SoftBank to Back AI Startup Perplexity at $3 Billion Valuation." The Economic Times, June 27. https://m.economictimes.com/tech/artificial-intelligence/softbank-to-back-ai-startup-perplexity-at-3-billion-valuation/articleshow/111302552.cms.

[55] Zúñiga, Nicholas, Saheli Datta Burton, Filippo Blancato, and Madeline Carr. 2024. "The Geopolitics of Technology Standards: Historical Context for US, EU and Chinese Approaches." International Affairs 100, no. 4. https://doi.org/10.1093/ia/iiae124.