

# Geopolitical Tensions between China and the US: Implications for Taiwan's Semiconductor Industry (2020-2025)

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## Abstract

Applying neo-mercantilist framework, this paper investigates the geo-political tensions between United States and China regarding Taiwan's semiconductor industry (2020-2025). With growing US-China technological competition between US and China, Taiwan's dominance in the world semi-conductor industry, specifically from TSMC's control 90% of cutting-edge chip production, has transformed from economic benefit into strategic liability. This study examines how both superpowers use export controls, protectionist policies and strategic instruments to protect Taiwan's semiconductor capabilities while denying them to rivals using neo-mercantilist analysis. The research shows that Taiwan faces a "pincer effect" from dual pressures, forcing Taiwan to respond by balancing technological cooperation with both powers while maintaining its strategic autonomy. Key findings show that neo-mercantilist strategies have escalated technological nationalism, transforming economic interdependence into a tool for geo-political rivalry. The research advances our knowledge of how strategically significant but small states negotiate great power rivalry in the digital era, by providing Taiwan's sustained technological leadership while reducing existential threats.

**Keywords:** Neo-mercantilism, Taiwan semiconductor industry, US-China competition, chip war, technological nationalism, strategic hedging, strategic industries, geopolitical tensions, strategic autonomy, great power rivalry

## Introduction

**W**hat if the world loses access to 90% of its advanced semi-conductors overnight? This is not a hypothetical scenario, but a looming risk stuck in

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the Taiwan strait. Taiwan's semiconductor industry led by Taiwan Semiconductor Manufacturing Company (TSMC), holds more than 90 percent of the advanced chip manufacturing capacity in the world and is leading in developing 2 nm and below process technologies. (Chen- Yuang Tung,2024). It has now become central to the functioning of the entire global digital infrastructure, enabling everything from smartphones and supercomputers to AI systems and advanced weapons (Miller, 2022).

As geopolitical tensions escalate between the United States and China in the region, Taiwan's semiconductor dominance has evolved from a mere economic advantage into a vital strategic resource at the very heart of great power rivalry (Balding,2021). This highlights their vital role in the global semi-conductor supply chain. The significance of the island in regional politics has gradually changed over the years, including crucial economic and technological aspects as they highly influence global affairs in the twenty-first century (Brown & Lee, 2023).

With serious implications for global stability, recent shifts in US-China-Taiwan relations indicate a shift from conventional strategic rivalry, toward a technology-centered competition. With policies like the CHIPS and Science Act (2022), export restrictions on leading-edge semiconductors, and increasing military aid for Taiwan, the US has responded to China's growing assertiveness (Congressional Research Service, 2023). Perceiving these actions as containment tactics, China has boosted its domestic semiconductor manufacturing efforts and strengthened its military presence near Taiwan (Zhang & Liu, 2024).

The years from 2020-2025 were turning point as with the emergence of Covid-19, weakness of supply chain was exposed. The US-China trade war turned into technological war intensifying the semi-conductor competition (Roberts & Kim, 2024). During this, both superpowers have emphasized on neo-mercantilist ideas by viewing economic policy as the zero-sum game or national security strategy rather than relying on the liberal ideas of mutual benefit and comparative advantage (Miller & Wang, 2023).

Understanding neo-mercantilist ideas influencing the states in this technology-driven competition is the main challenge. In a technological driven world where Semi-conductors have emerged as the element of national power, states pursuit of technological advancement and economic nationalism create intricate

interdependencies and strategic issues that cannot be understood effectively by traditional lens of economic liberalism. (Johnson, 2023). In neo-mercantilism model, semi-conductor industry, which is worth over \$500 billion globally, and accounts for 12% GDP of Taiwan is more than just an economic wealth. It is a point where innovation, strategic independence and national security intersect. (McKinsey & Company, 2024).

While substantial literature has examined prevailing USA-China crisis through various theoretical lenses including Structural Realism, and liberal institutionalism, there remains a significant gap of understanding the issue by applying neo-mercantilist theories (Davis et al., 2023). Most of this analysis focused on either economic interdependencies or military strategies in isolation but missed the key argument of neo-mercantilism that formulates economic policy as the extended form of national security strategy (Anderson & Thompson, 2024). To fill this gap, this theory uses neo-mercantilism as the thorough framework to investigate how protectionist policies, export-led growth, and the drive for technological independence influence the US-China and Taiwanese policies regarding semi-conductor technology during the crucial 2020-2025 period.

## Theoretical Framework

### ❖ Neo-Mercantilism

Neo-mercantilism represents the modified version of previously known mercantilist theories; to address the complexities of modern world economy. In contrast to classical realism, which merely focuses on acquiring precious metals like gold and ensuring positive trade balances, neo-mercantilism emphasizes on economic nationalism, strategic industries and technological innovation as means to elevate national power and security (Gilpin, 2001). According to neo-mercantilist ideas, in this anarchical world state sees economic policy as the extension of national security policy, giving relative gains priority over absolute gains.

The core principles of neo-mercantilist ideas involve following : (1) the idea that economic power directly transforms into military and political power; (2) The use of protectionist policies in order to nurture domestic industries; (3) the focus on achieving technological dominance and self-sufficiency in vital industries (4) the desire to enhance national competitiveness through export-led growth; and (5) the

deliberate manipulation of economic interdependence to promote political goals (Strange, 1988; Krasner, 1976).

Since this explains how great power competition impacts smaller but strategically significant bodies, the application of neo-mercantilist ideas to analyze the position of Taiwan in the US-China semiconductor rivalry is both philosophically valid and practically applicable. This paradigm describes how, to achieve technological self-sufficiency, a defining feature of neo-mercantilist strategy, both the China and US have shifted their economic policies from market driven policies to state centric economic strategies. It is visible from US Chips and Science Act and China's massive investment in technology. Despite of its small size, Taiwan has become the center of focus in this geo-political and technical contest due to its dominance in SCI.

The neo-mercantilist framework shows that Taiwan's dominance in semiconductors is both a strategic advantage and a growing weakness, as it draws a lot of attention from competing superpowers. This explains Taiwan's critical strategic position and intricate policy concerns. It also emphasizes how traditional forms of cooperation have failed and how Taiwan must make difficult choices between its main economic and security allies due to the zero-sum nature of today's tech rivalry, where one state's benefit is counted as another's loss.

Neo-mercantilism provides realistic framework to provide pragmatic solutions by acknowledging the security-driven motivations behind the behavior of state rather than assuming clear economic rationality. This suggests strategies for Taiwan, including utilizing its supremacy in SCI as the diplomatic asset, diversifying its technology for strategic protection and forming asymmetric alliances to strengthen its strategic independence. Rather than solely depending on financial incentives, this framework emphasizes on sustainable solutions that address the concerns of every party involved. It points toward multilateral frameworks that maintains a balance between competitive and cooperative elements in vital technology sectors, technology-sharing agreements by ensuring safety, and confidence building measures (CBMs).

## **Neo-Mercantilist Analysis**

### **❖ US, China, and Taiwan in Semiconductor Competition (2020-2025)**

#### **The United States: Technological Hegemon Under Threat**

Since the 1950s and 1960s, when the semiconductor industries first emerged, the United States has dominated the field. Companies like Intel, Texas Instruments, and Fairchild Semiconductor were the first to develop the technology that was destined to shape the digital age in future. However, by 2010s, Asian manufacturers specifically Samsung and Taiwan's TSMC started to gain manufacturing dominance. Consequently, USA started to feel what academics say, "Technological anxiety", shifting their attention to designs and intellectual property (Mazzucato, 2021). This shift became particularly concerning when USA realized its reliance on foreign semiconductor industries as the critical threat to their national security.

The period of 2020-2025 shows important transition in US semiconductor policies from market-oriented approaches to explicit neo-mercantilist strategies. Covid-19 exposed vulnerability of global supply network while the technical competition with China transformed semiconductors from economic concern into a matter of national survival (National Security Commission on Artificial Intelligence, 2021). The US government knew losing technological leadership in semiconductors would affect American military dominance, economic growth, and global influence.

#### ❖ US Interests and strategic objectives

According to neo-mercantilist ideas, the desire to maintain technical supremacy as the foundation of the national power is what essentially drives US interests in the semiconductors. The US views semiconductor race as the zero-sum game where China's gain represents American losses in terms of relative power (Allison, 2021). This perspective of US relates with neo-mercantilist ideas of relative gains and support of the economic policy as the extension of national security.

The US strategic objectives are framed by multiple dimensions: 1) Preserving technological supremacy in cutting-edge semiconductor manufacturing and design; 2) Decreasing its dependence on foreign suppliers, especially in North Korea and Taiwan; 3) Preventing China to gain access of advanced semiconductor technology that could enhance China's military capabilities; 4) Strengthening technological partnerships with other countries against Chinese progress (Sullivan, 2022). The neo-mercantilist ideas of strategic industries as the source of state power and manipulation of economic system for political purposes, are visible in these US strategies.

In specific, neo-mercantilist interpretations about using strategic partnerships for technological gain are reflected in the US attitude to Taiwan. To secure access to vital technologies and strengthen Taiwan's connections to the US-led technological system, the US has increased semi-conductor co-operation while maintaining strategic ambiguity over Taiwan's strategic position (Sutter, 2021). This highlights a traditionalist neo-mercantilist idea of using economic ties to achieve geo-political goals.

### ❖ Policy Implementation and Strategic Measures

The fundamental US Policy that reflects neo-mercantilist ideas is the CHIPS and Science Act of 2022, which granted \$280 billion to promote domestic semiconductor development, research and production. This act exemplifies neo-mercantilist strategies by using state involvement to support strategic industries and reduce foreign dependence (Congressional Budget Office, 2023). The following Act offers \$13 billion for research and development (R&D), \$39 billion for production services and additional funds for work force development, which makes it one of the significant and largest industrial initiative in decades (Semiconductor Industry Association, 2023).

Moreover, export controls implemented by USA in a very sophisticated manner to limit the transfer of technology or semiconductors equipment to China is another crucial part of US strategy. Analysts have described the October 2022 export restrictions as "the most sweeping technology restrictions since the Cold War," targeting not only Chinese firms but also foreign businesses employing US technologies (Rasser et al., 2023). These actions are another example of how neo-mercantilist strategy work by using economic instruments to meet strategic goals, which uses technology interdependence as a tool to inhibit the capacities of the rivals.

The establishment of TSMC production facilities in the US is another critical manifestation of US-Taiwan semiconductor collaboration, which represents the largest foreign direct investment in the America's production history. The deal for the TSMC's \$40 billion investment in the Arizona, exemplifies how the US has utilized economic benefits to protect critical supply chain assets domestically (Arizona Commerce Authority, 2023). This agreement ultimately extends US export control through binding agreements rather than regulatory enforcement by itself, as it clearly limits the TSMC'S capacity to produce cutting-edge semiconductors

technology for Chinese clients (Wall Street Journal, 2024). The agreement demonstrates neo-mercantilist principles of using economic alliances to achieve strategic goals while simultaneously inhibiting rival's access to critical technologies. Additionally, US has smartly put such agreements in place that mandate Taiwanese semiconductor companies who get money under the CHIPS Act to restrict their technology transfers and operations in China. These "guardrails" provisions require firms to share excess earnings with the US government if their investments prove to be very successful and prevent them from expanding advanced semiconductor production in China for ten years (Department of Commerce, 2023). This strategy highlights skilled applications of neo-mercantilist concepts, using economic instruments to achieve both technological assets and strategic conformity from foreign alliances.

The US has also expanded security ties with Taiwan with significant agreements like the 21st Century Trade Initiative and improved defense cooperation agreements. Taiwan saw a substantial increase in military assistance. Between 2020-2025, arms sales totaled over \$18 billion, with a large portion of that money being invested in asymmetric defense capabilities (Congressional Research Service, 2024). The neo-mercantilist combination of security and economic agendas is reinforced by this military dimension.

#### ❖ Challenges and Limitations for US

The US face significant challenges in putting its semiconductor strategy into practice, despite of their aggressive policy measures. Due to high cost and complexity of the modern semiconductor manufacturing, developing domestic capacity will take decades rather than years of continuous investments. While Intel's struggle to compete with TSMC's advanced semiconductor technologies highlights the complexity of rebuilding production leadership through government involvement alone (Jones, 2023). Moreover, total disconnection with China would be technologically and economically harmful owing to the global nature of semiconductor supply networks.

The US is also facing the hurdle of alliance management, since important allies like Japan and South Korea have their own ties to China that make it more difficult for the US to create single technical front. Additional opposition is caused by private sector industries to significant governments intervention in the semiconductor

industry, as businesses frequently put market access above any national security considerations (Kleinheinz, 2024).

## **China: Rising Technological Power**

### **❖ Historical Background and Strategic Evolution**

China's involvement in semiconductor industries began in 1980s as part of their broader economic reforms, first concentrating on manufacturing and testing for international businesses. However Chinese Leaders were swift to understand that technological reliance represented a fundamental weakness that might limit the nation's rise to great power status (Naughton, 2021). The 2008 global financial crises urged China to think of technological self-reliance, while the 2018 ZTE sanctions offered a clear example of how technological dependencies could be used as a weapon against Chinese interests.

During the period of 2020-2025, China transformed herself from reactive to proactive player in the field of global semiconductors rivalry. The increasing US sanctions, beginning with Huawei sanctions and ending with export controls persuaded Chinese leadership that technology self-sufficiency was not only desirable but also important for country's survival (Tanner, 2022). By this insight, significant shift occurred in China's policy that valued strategic autonomy over economic efficiency, emphasizing on the core neo-mercantilist principles.

China's current strategy for semiconductor competition is inspired by its past experiences with technological backwardness and foreign domination. The narrative of the "century of humiliation" strengthens China's resolve to become technologically independent and prevent foreign efforts to contain China (Wang, 2023). This highlights that development of advanced semiconductor technologies signifies not only economic potential but also national renewal and return of China to its proper position in the global hierarchy.

### **❖ Neo-Mercantilist Interests and Strategic Measurements**

China's semiconductors planning reflects neo-mercantilist themes, which views technical prowess as an essential to both security and national power. By clearly framing semiconductor production as the matter of "technological sovereignty," Leadership rejects liberal ideas of the benefits of international specialization in favor of strategic reliance (Zhou & Li, 2024). This strategic approach reflects the neo-

mercantilist focus on developing comprehensive national capabilities and mitigating the risks brought about by economic interdependence.

China's interests in Taiwan's SCI are very intricate combining political, technological and economic factors. Economically, gaining control over Taiwan's SCI would be beneficial for China to establish a dominant global market position and reduce its reliance on foreign suppliers. Technologically, Chinese semiconductor production abilities would be accelerated by decades if they had access to TSMC's advanced manufacturing techniques. While fulfilling the political goals, success in the semiconductor domain would highlight the China's ability to oppose US technological dominance and accomplish national unity objectives at the same time. (Goldstein, 2023).

China's readiness to forgo immediate economic costs in order to achieve long term politic and strategic advantages can be explained by ideas of neo-mercantilism. Chinese investment in semiconductor development frequently contradicts economic rationality by prioritizing technological prowess ahead of short-term financial gains. This strategy perfectly aligns with neo-mercantilist ideas that view key sectors or strategic industries as sources of future power rather than as sources of present economic rewards (Chen & Wang, 2024).

#### ❖ Policy Implementation and Strategic Measures

China's multi-dimensional semiconductor strategy reflects the all-encompassing character of neo-mercantilist industrial policy. With commitments reaching \$150 billion, the National IC Industry Investment Fund- which was founded in 2014 and greatly expanded after 2020, represent the greatest government- directed investment effort in the SCIs history (Semiconductor Industry Association, 2023). This allocated fund is the perfect example of utilizing state resources to build strategic capacities and lessen foreign dependencies.

Through more focused initiatives, the "Made in China 2025" campaign continues to guide Chinese semiconductor production, despite being formally de-emphasized in response to global criticism. (Zhang & Liu, 2024). These include a number of provincial level programs that offer tax breaks, incentives and utmost attention for semiconductors businesses, as well as the National Medium and Long-term Planning for Science and Tech development. The strategic importance placed on the

SCI is demonstrated by the integration of semiconductor development into China's Five-Year Plans.

China uses both coercive pressure and economic motivations in its approach to Taiwan. Economic initiatives include talent recruitment programs, investment incentives, and exclusive market access for Taiwanese businesses (Brown & Chen, 2023). On the other hand, China uses coercive diplomacy to isolate Taiwan and military pressure to demonstrate the price of continuing alignment with US technical objectives.

China has implemented extensive domestic programs to build up its own semiconductor capabilities, such as large-scale research and education expenditures, state-directed transactions and mandates for knowledge transfer for global enterprises. The foundation of integrated circuit universities and specialized research institutes are evidence of the Chinese long-term technological aspirations (Technology, 2024).

Another significant part of China's neo-mercantilist semiconductor strategy has been the execution of the "National Strategy for Integrated Circuit Industry Development" (2021-2035), which symbolizes the most extensive and ambitious technical development program in the Chinese history. This strategy covers the whole semiconductor value chain, from the production of raw materials and equipment to chip design and packaging, with allocated funding exceeding \$1.4 trillion over the course of 15-year implementation term (State Council, 2021). The strategy clearly aims to achieve full technological independence by 2035 and 70% self-sufficiency in semiconductor production by 2025, highlighting China's dedication to get rid of Western technological dependencies at any costs (China Securities Journal, 2023).

This program includes special features for "National Champions" - state-designated corporations like YMTC, Hua Hong Semiconductor, and SMIC that receive special funds, consistent support, as well as ensures protection from outside competition (National Development and Reform Commission, 2022). Exemplifying neo-mercantilist utilization of geographical power and state resources to build strategic industrial abilities, the strategy also creates "semiconductor special economic zones" in strategically important cities like Shanghai, Shenzhen, and Xi'an. These zones offer tax holidays, land grants, and organized regulatory

procedures to companies that add to the development of local semiconductors (Ministry of Finance, 2024).

### ❖ **Limitations and Challenges**

Despite of huge investments and policy commitments, China still has a long way to go before becoming self-sufficient in semiconductors. Government involvement alone cannot easily replicate the technological complexity of advanced semiconductors production. It calls for not only but also accumulated experience, complex supply chains, and continuous innovation cycles (Fuller, 2023). US export restrictions have made it extremely difficult for China to get important manufacturing instruments, especially extreme ultraviolet (EUV) lithography systems that are necessary for advanced methods.

Additionally, China faces the challenge of balancing self-dependence goals with the demands of global technology interdependence. For complete autonomy in semiconductors, developing capabilities throughout the entire supply chain, from raw materials to final assembly, would be essential. Moreover, Chinese semiconductor firms still lag significantly behind international leaders in both operational effectiveness and technology (Peterson Institute for International Economics, 2024).

## **Taiwan: Strategic Asset in Great Power Competition**

### ❖ **Historical Significance and Evolution of Strategic Position**

As part of Island's largest industrialization agenda, Taiwan started to emerge as semiconductor powerhouse in the 1970s initially focusing on labor-intensive assembly operations for American and Japanese companies. An important turning point was the establishment of Taiwan Semiconductor Manufacturing Company (TSMC) which was founded in 1987. It introduced the foundry model that would revolutionize the global semiconductor industry as well as Taiwan's economy (Mathews & Cho, 2021). By the 2000s, Taiwan achieved something unexpected and started to dominate positions in semiconductor manufacturing. TSMC became the world's largest contract manufacturer and Taiwan leading with control of over 60% of global production capacity.

Taiwan's strategic environment saw significant shifts between 2020 and 2025 as its dominance in semiconductors changed from being an economic benefit to a

geopolitical liability. The intense rivalry between US and China transformed Taiwan from relatively peaceful economic success into a strategic center of battleground for technological dominance (Kastner, 2022). Since Taiwan's economic crown jewel became both its greatest strength and greatest weakness. This transformation brought both uncertain opportunities and existential threats for Taiwan.

Understanding Taiwan's contemporary strategic calculations requires an awareness of its past experience with the great power conflict. The island's fragile position in the world, with official diplomatic recognition from only few nations, has cultivated a pragmatic approach to international relations that prioritizes economic usefulness and technological necessity (Rigger, 2023). Taiwan's leaders have continuously aimed to use economic power to preserve international space and security as the island's survival strategy highly depends on semiconductor dominance.

#### ❖ **Neo-Mercantilist Interests and Strategic objectives**

According to neo-mercantilist theory, Taiwan's semiconductor industry is both the strategic asset and biggest liability in the modern international system. The need to preserve technical importance while avoiding complete dependence on any one major power substantially shapes Taiwan's interests (Wu & Chang, 2024). This balancing act describes neo-mercantilist principles about the strategic importance of managing vital resources and risks of over-reliance.

Scholars describe Taiwan's strategy in the US-China semiconductor race as a "hedging strategy" which aims to mitigate the risks of abandonment or confinement while optimizing the benefit of both ties (Goldstein & Schriver, 2021). This approach involves maintaining sufficiently connecting economic relations with China to prevent total decoupling while boosting technological cooperation with US to improve security assurances. The neo-mercantilist paradigm explains this method as rational behavior for a small state in a bipolar rivalry that controls strategic resources.

Taiwan's leadership acknowledges that semiconductor supremacy provides special leverage in great power competition, making the island "too important to fail" from the standpoint of both the US and world economy (Miller, 2023). In the anarchic international systems where, formal alliances may prove unreliable, Taiwan views semiconductor capabilities as the ultimate security guarantee. This drives Taiwan to invest in preserving technical dominance, safeguarding their strategic position.

### ❖ Policy Implementation and Strategic Responses

Taiwan used intricate balancing techniques that take advantage of semiconductor capabilities for maximum strategic benefit in response to escalate great power conflicts. The island has solidified its technological cooperation with the US through programs like the Chips and Science partnership, which gives Taiwan access to US research networks and markets while contributing to American technical capacities (National Science and Technology Council, 2023). This partnership describes neo-mercantilist alliance strategies, that trade technology resources for security vows.

Taiwan has simultaneously taken measures designed to preserve technological leadership and minimizing the vulnerabilities created by excessive concentration in semiconductor manufacturing industry. The Asia Silicon Valley Development Plan aimed to expand Taiwan's technological capacities beyond conventional production, while the Forward-Looking infrastructure Development Program allocated significant funds to semiconductor research and development (Development Council, 2024). These projects reflect mercantilist focus on preserving competitive advantages in key industries.

Taiwan has also adopted defensive tactics aimed at preventing vital technologies and important personnel from foreign recruitment or acquisition. The Anti-Infiltration Act and amendments to the National Security Act provide laws that limit technology transfers and to prevent talent drain, especially to mainland China (Mainland Affairs Council, 2023). Neo-mercantilist worries about protecting key assets from competing countries are reflected in these actions.

Taiwan has managed to maintain a careful balance between security and economic cooperation with China. The government has put limitations on the transfer of advanced semiconductor technology and demanded approval for investments in critical industries, although it still allows Taiwanese firms to invest in mainland China (Investment Commission, 2024). Neo-mercantilist calculations on maximizing economic gains while protecting strategic capabilities are reflected in this strategy.

### ❖ Strategic Challenges and Future Consequences

Taiwan has tremendous obstacles in preserving semiconductor dominance in the face of escalating great power competition, despite its present advantages. Due to island's strategic location of important manufacturing facilities, it is prone to both natural disasters and armed conflicts; any disruption might collapse the global

economy (McKinsey & Company, 2024). Diversifying production areas has been discussed in response to this concentration issue, although doing so would potentially reduce Taiwan's strategic leverage.

Taiwan also faces challenge to maintain its technical supremacy, as the US and China both make significant investments in building up in their own indigenous capabilities. Although Taiwan now has a significant edge in advance manufacturing methods, these advantages could soon be undermined by the immense resources utilized by both superpowers (Semiconductor Industry Association, 2024). Moreover, Taiwan may be vulnerable if great power competition disturbs its supply links due to its reliance on foreign equipment providers, specifically the Dutch Lithography business ASML.

Taiwan's long-term technical competitiveness is at stake due to demographic problem of an aging population and declining birth rates, as semiconductor industry needs a significant number of highly skilled engineers and technicians. Taiwan's human capital advantages may be threatened by the escalating competition for talent with mainland China and other regional technological hubs (National Development Council, 2023). To safeguard Taiwan's strategic position in the dynamic semiconductor industry, these issues need continuous regulatory attention and financial allocation.

### **Impact of US and Chinese Policies on Taiwan: Neo-Mercantilist Convergence and Divergence**

#### **❖ The Pincer Effect: Dual Pressures on Taiwan's Strategic Position**

Taiwan is at the center of a neo-mercantilist competition in which its strategic environment, economic outlooks, and security issues are directly driven by US and Chinese actions. Taiwan is relatively smaller state that controls vital strategic resources that both competing superpowers either want to secure or deny to their rival making it ultimate prize in the technical competition from a neo-mercantilist perspective (Beckley, 2022). This dynamic results in what scholars term a "Pincer Effect" where Taiwan simultaneously faces pressures from both sides that fundamentally shapes its strategic thinking and policy alternatives.

The policies of US and China converge at the point where both think Taiwan's semiconductor industry as strategically important body. Both nations have shifted

from conventional economic methods to clear neo-mercantilist strategies that prioritize national security over market efficiency when evaluating Taiwan's technological prowess (Economy, 2024). As both superpowers aim to tie Taiwan more closely to their own technical ecosystems, this convergence has simultaneously both increased Taiwan's strategic worth and limited its autonomy. However, the divergent techniques applied by US and China create significantly distinct pressures on Taiwan. The United States places a strong emphasis on collaboration and integration, providing Taiwan more technological cooperation and security commitments in return for a closer integration with US strategic goals. In contrast, Chinese policies, combine economic incentives with coercive pressure, seeking to gradually incorporate Taiwan's SCI into the mainland ecosystem while highlighting the consequences of ongoing resistance to unification (Rigger & Goldstein, 2023).

#### ❖ US Policy Impact: Partnership with Strategic Dependence

The most important US policy change influencing Taiwan's semiconductor sector is the CHIPS and Science Act, which changes Taiwan's strategic thinking by generating dependencies and opportunities. The act's provisions for International Cooperation specifically call for collaborations with "trusted allies," establishing Taiwan as vital ally in the United States' technical rivalry (Semiconductor Industry Association, 2024). This partnership offers Taiwan access to US research networks, markets and advanced technologies but also puts pressure on Taiwan to further integrate, which could reduce its strategic adaptability.

Taiwan's industry is seriously affected by US export restrictions on semiconductor technology to China, which essentially force Taiwanese businesses to choose between the US and Chinese markets. Taiwanese company behavior is directly influenced by US regulations with financial objectives, as seen by TSMC's commitment to US limitations on advanced chip sales to Chinese firms (Reuters, 2024). This dynamic is the prime example of how neo-mercantilists use economic interdependence to promote strategic goals, as the US takes advantage of Taiwan's reliance on American markets and technology to ensure compliance with deeper containment measures.

The expansion of US-Taiwan defense cooperation which includes arms sales and military training initiatives, offers Taiwan significant security gains in addition to promote more strategic alignment with American interests. Over \$8 billion were

approved in sales to Taiwan between 2021 and 2024 by Biden administration, marking a significant change in approach from viewing Taiwan as a business partner to strategic ally (Congressional Research Service, 2024). However, this growing defense alliance also raises Taiwan's profile in the US-China rivalry, which might make the island more prominent target for Chinese pressure.

Taiwan's technological diversification beyond traditional manufacturing strengths has also been encouraged by US policies. The foundation of joint research projects in advanced materials, quantum computing, and artificial intelligence offers Taiwan to expand its technological capabilities and lessen its dependence on semiconductor production alone (National Science Foundation, 2024). Instead of depending on limited specializations that are exposed to disruption, this diversity is in line with neo-mercantilist beliefs about developing wide technological skills.

#### ❖ **Chinese Policy Impact: Integration through Incentives and Coercion**

China's strategy for Taiwan's semiconductor sector uses a complex mix of coercive measures and economic incentives aimed at gradually integrating Taiwanese skills into the mainland ecosystem. Taiwanese semiconductor companies benefit from special market reach, tax incentives and investment opportunities through the "31 Measures" and subsequent policy packages, which frequently beyond what Taiwan's local market can offer (Taiwan Affairs Office, 2023). These strategies, which aim to establish permanent economic integration that would increase the potential of political union, are prime examples of neo-mercantilist use of economic tools to promote political objectives.

Chinese talent recruitment initiatives target Taiwan's semiconductor workforce, providing career prospects and compensation packages that are difficult for Taiwan's domestic industry to compete. The programs like "Thousand Talent Program" and similar initiatives have been successful in luring many Taiwanese executives and engineers, creating brain drain pressures directly affecting Taiwan's technological competitiveness (Ministry of State Security, 2024). This brain drain is a part of economic warfare that accelerates Chinese indigenous development programs with undermining Taiwan's strategic capabilities.

Campaigns of military pressure, such as heightened naval and air operations near Taiwan, create economic costs that have an immediate impact on the semiconductor sector. According to the institute for National Defense and Security

Research (2024), uncertainty over Taiwan's security status impacts international relationships and foreign investment, while the need for increased defense expenditures takes fund away from technological innovations. This coercive aspect of China's policy highlights how military pressure can serve neo-mercantilist perspectives by placing financial costs on strategic rivals.

The semiconductor industry is impacted by China's diplomatic isolation campaign against Taiwan since it reduces international cooperation and participation. Taiwan's ability to dominate global technological advancements and maintain technological leadership is limited by its exclusion from multilateral projects and standard setting bodies (Brookings Institution, 2024). This diplomatic pressure is an example of neo-mercantilist tactics, which employ political tools to limit economic rivals' strategic options.

#### ❖ **Interactive Effects: Policy Coordination and Contradiction**

Due to complicated dynamics created by the interaction of US and Chinese policy, Taiwan is often forced to make decisions that are counterproductive to its economic interests. Taiwan must a strike balance complying to US regulations and chasing business prospects when the US limits exports of semiconductor technology to China while China presents Taiwanese firms with profitable market opportunities (Peterson Institute, 2024). between These conflicting forces showcase how the neo-mercantilist economic policy has evolved into strategic rivalry, where geopolitical goals take precedence over commercial ones.

It frequently seems as though the timing of US and Chinese policies are designed to increase the pressure on Taiwan's decision making. The declaration of heightened US-Taiwan collaboration is constantly accompanied by Chinese military exercises, and US arms sales approvals are often followed by Chinese economic incentive campaigns (Center for Strategic and International Studies, 2024). This trend points to a comprehensive understanding of how Taiwan's strategic environment and policy options can be shaped by policy coordination.

Both superpowers increasingly perceive Taiwan's semiconductor sector through the perspectives of strategic denial, aiming to keep their rivals from gaining advantages or acquire access for themselves. Because of these dynamics, Taiwan is no longer a business partner but rather a strategic asset that needs to be controlled (Foreign Policy Research Institute, 2023). A significant change in great power competition is

shown in the move toward strategic denial, where commanding vital technology takes prominence over conventional indicators of economic and military power.

#### ❖ **Taiwan's Adaptive Responses: Strategic Hedging Under Pressure**

Taiwan's response these two challenges highlights sophisticated application of neo-mercantilist ideas tailored to a small state condition. Through what academics term as “technological hedging,” the island has managed to continue cooperation with both countries without being entirely dependent on either (American Enterprise Institute, 2024). This strategy aims to reduce the tensions between the US and China by dividing out the various aspects of semiconductor cooperation.

Moreover, Taiwan has adopted “strategic ambiguity” in its own technical policies, maintaining enough autarky to withstand undue pressure from either side while cooperating with both countries enough to avoid abandonment. Taiwan has acknowledged that technological self-sufficiency offers the best security assurance in neo-mercantilist competition, as demonstrated by the development of its own defense capabilities such as advanced radar and missile systems (National Chung-Shan Institute of Science and Technology, 2024).

The island's emphasis on sustaining technological leadership through continuous innovations reflects neo-mercantilist knowledge that competitive advantages need to be continuously refreshed to remain strategically important. Taiwan is attempting to keep ahead of both the US and China by investing in next generation technologies such as 2-nanometer processes and sophisticated packaging which will ensure its continued importance in global supply chains (Taiwan Semiconductor Research Institute, 2024).

#### ❖ **Limitations and Gaps in Taiwan's Strategic Responses**

Taiwan's sophisticated strategic technique is found to have several shortcomings, when examined under the framework of neo-mercantilism. While retaining short term strategic adaptability, Taiwan's technological hedging approach has sustainability issues that could compromise its long-term efficiency (Chang & Lin, 2024).

Moreover, a strategic weakness created by Taiwan's over reliance on semiconductor dominance contradicts to neo-mercantilist ideas of economic diversification. There is a catastrophic risk due to Island's concentration of 63% of the world's

semiconductor production capacity in a geographically constrained area (Asian Development Bank, 2024). Taiwan's greatest strategic strength becomes its greatest weakness because of this dependency, which means that natural disasters, conflicts, or technology crisis could swiftly bring down Taiwan's economy and worldwide supply networks.

Another significant factor that weakens Taiwan's strategy is the demographic dilemma. Taiwan is bound to face human capital restrictions in maintaining its position as a leader in semiconductors due to low birth rates and an elderly population (Hsiao & Liu, 2024). The industry's need for highly qualified engineers and technicians' conflicts with Taiwan's declining talent pool. This basic resource limitation that compromises long-term competitiveness is not sufficiently addressed by current policy.

Additionally, while being tactically adaptable, Taiwan's strategic ambiguity is becoming less and less effective in the face of the US-China competition's binary choices (Oxford Analytica, 2024). Taiwan's maneuvering is constrained by the neo-mercantilist zero-sum idea that motivates both superpowers, demanding more explicit alignments that compromise the island's preferred hedging strategy. Taiwan may not be able to keep up with the rapid pace of great power technological decoupling with its incremental responses.

### **Policy Recommendations: Neo-Mercantilist Strategic Solutions**

#### **❖ Technological Sovereignty Through Asymmetric Innovation**

Taiwan must strive for "asymmetric technological sovereignty" by creating special skills that both countries need but find difficult to replicate (Chen, 2024). Taiwan should make significant transformations in advanced technologies including quantum computing, advanced materials, and biotechnology semiconductors following the neo-mercantilist themes of strategic industry growth. In addition to generating new means of strategic leverage, this diversification approach would reduce the excessive reliance on semiconductor production.

The establishment of "Taiwan Technology Sovereignty Fund" will boost local R&D, with designated funds of \$50 billion over the course of ten years (Taiwan Institute for Economic Research, 2024). This fund should give priority to innovative technologies where Taiwan may achieve a competitive edge, ensuring Taiwan's

strategic significance even while the US and China build up their own semiconductor capacities.

#### ❖ **Strategic Supply Chain Resilience Architecture**

Taiwan should adopt a “distributed resilience model” that reduce the dangers of regional concentration while safeguarding the strategic control (OECD, 2024). This includes creating much needed intellectual property and cutting-edge technologies domestically while establishing safe, repeated network production networks between allies. Without sacrificing Taiwan’s position as a leader in technology, partnership facilities in South Korea, Japan and few European countries would offer backup capacities (Tokyo Foundation for Policy Research, 2024).

The foundation of a “Strategic Technology Reserve System” would gather vital supplies, machinery, and knowledge required to keep up the production in the event of supply chain disruptions (National Taiwan University, 2024). This neo-mercantilist technique emphasizes on technical capacities as strategic assets that need to be actively managed and safeguarded.

#### ❖ **Diplomatic Technology Partnerships**

Taiwan must use its semiconductor abilities to form “Technology Partnership Councils” with important European countries as well as the middle powers like South Korea, Japan and Australia (Lee & Park, 2024). These multilateral frameworks will increase the resilience of global supply chain and provide Taiwan with more strategic options by establishing alternative collaboration channels outside of the US-China polarization.

According to Singapore Institute of International Affairs (2024), the establishment of “Semiconductor Security Partnerships” would lead to defense agreements for technology supply networks, whereby partner countries vow to preserve Taiwan’s technological access in return for guaranteed semiconductor supplies in states of turmoil.

#### ❖ **Human Capital Strategic Development**

A comprehensive “Strategic Talent initiative” that combines advanced automation technologies, worldwide talent recruitment initiatives and immigration policy reforms are essential to address demographic issues (Hsiao & Liu, 2024). To reduce its dependence on human resources, Taiwan must engage in AI-assisted production and create fast track residence pathways for semiconductor workers worldwide.

The formation of "Global Taiwan Tech Universities" in partner countries would ensure knowledge preservation and continued innovative capacity while promoting talent pipelines and extending Taiwan's technological capabilities globally (Atlantic Council, 2024).

#### ❖ Economic Warfare Preparedness

The development of complete economic warfare defense capabilities, such as alternative trade mechanisms, strategic resource storing, and financial system durability is essential for Taiwan (Kao, 2024). Establishing "Economic Security Emergency Protocols" would allow for quick reaction to economic coercion attempts while preserving the critical operations in times of emergency.

Following the themes of neo-mercantilism related to strategic independence, digital currency systems and alternative payment methods to ensure continuous global trade even in the events of interruptions to the traditional financial systems (World Economic Forum, 2024).

## Conclusion

The geopolitical tensions between US and China over Taiwan's semiconductor industry are examined from a lens of neo-mercantilism, which highlights significant changes in global economic ties between 2020 and 2025. In contemporary great power rivalries, technological capabilities have turned into a tools of state power, as visible by Taiwan's transition from economic advantage to strategic vulnerability in semiconductor dominance (Research Center for Humanities and Social Sciences, Academia Sinica, 2024).

The study shows that in contrast to more traditional and liberal economic methods; neo-mercantilist perspectives offer a better analytical framework for understanding semiconductor competitiveness. Neo-mercantilist presumptions regarding the security-driven motivations driving state behavior have been validated by the US and China's denial of market-driven policies in favor of state centric initiatives that put national security above economic efficiency (International Institute for Strategic Studies, 2024).

Taiwan's strategic location serves as an example of the complex issues faced by small nations in bipolar struggle that controls vital resources. The island's advanced hedging techniques, which aim to reduce the risks of abandonment or entrapment

while optimizing benefits from both superpowers, reflect rational neo-mercantilist calculations (Singapore Institute of International Affairs, 2024). The growing zero-sum logic of US-China conflict, however, is limiting Taiwan's strategic flexibility and requiring more bolder decisions that undermine the value of hedging.

The policy recommendations presented emphasize asymmetric innovation, strategic diversification, and multilateral partnerships as means for Taiwan to maintain technological leadership while reducing existential vulnerabilities. These solutions align with neo-mercantilist principles by prioritizing strategic autonomy, technological sovereignty, and alliance formation as instruments of state survival (European Centre for International Political Economy, 2024).

Future studies should look at how other strategically significant small states deal with the competition from major superpowers in important technological sectors. Understanding technology-driven geopolitical conflicts that are expected to intensify as digital revolution accelerates global economic and security interdependencies is made easier by Taiwan semiconductor case (World Economic Forum, 2024).

The ramifications extend beyond Taiwan's particular circumstances to touch on more general issues of supply chain resilience, technological governance, and global stability at a time of growing great power competition. As semiconductors play an increasingly significant role in national power projection, the lessons learned from Taiwan's experience provide valuable direction for preserving global technological stability while managing unavoidable great power rivalry.

Thus, Taiwan's semiconductor industry is more than just an economic sector; it is a crucial hub in the global power structure where economic interests, technological might, and security concerns all align together. The neo-mercantilist paradigm sheds light on how these processes will likely shape international relations for the rest of the 21st century, as states increasingly view technological supremacy as the cornerstone of all-encompassing national power.



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Article Information:

<i>Received</i>	25-Mar-2025
<i>Revised</i>	30-May-2025
<i>Accepted</i>	7-Jun-2025
<i>Published</i>	15-Jun-2025

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Declarations:

Author's Contribution:

- **Conceptualization, and intellectual revisions**
- **Data collection, interpretation, and drafting of manuscript**
- The author agrees to take responsibility for every facet of the work, making sure that any concerns about its integrity or veracity are thoroughly examined and addressed

• **Conflict of Interest:** NIL

• **Funding Sources:** NIL

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