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Taiwan

**Taiwan: Walking the Tightrope between
the United States and China**

Syaru Shirley Lin

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EXECUTIVE SUMMARY

This chapter examines the implications of U.S.-China decoupling for Taiwan's integration with the Chinese and world economies and explores how this economic fragmentation is shaping the context in which the Taiwanese are determining their island's future.

MAIN ARGUMENT

As the U.S. and Chinese economies decouple, Taiwan is navigating challenges posed by strategic competition between two great powers. In an increasingly fragmented global economy, Taiwan shares democratic values and strategic goals with the U.S. However, U.S. policies aiming to retain technological supremacy over China, especially in the semiconductor sector, lack coordination with Taiwanese and international stakeholders and are hurting Taiwan, whose growth depends on global economic integration, particularly with the Chinese market. This has raised doubts about U.S. leadership within Taiwanese society, which is grappling with domestic challenges to economic resilience amid deepening political polarization. How the U.S. engages with Taiwan will not only shape perceptions of the U.S. but also influence Taiwan's ability to support U.S. strategic goals in competing with China.

POLICY IMPLICATIONS

- The U.S. must reassess semiconductor reshoring policies, analyze the impact of its export controls and investment restrictions on Taiwan and other partners in Europe and Asia, and offer concrete incentives to ensure ongoing compliance.
- The U.S. must engage Taiwan's business community, government, and civil society when considering new rules for regional and international economic collaboration to maintain trust and support from Taiwanese society.
- The U.S. must continue supporting Taiwan's pursuit of deeper regional economic integration and greater international involvement, which remain vital for enhancing Taiwan's resilience and capacity to contribute to the U.S.-led liberal order.

Taiwan: Walking the Tightrope between the United States and China

Syaru Shirley Lin

As the global economy moves away from globalization to regionalization, Taiwan's previous model of economic development through technological and policy innovation and integration with global supply chains is becoming less resilient and competitive. The island faces supply chain fragmentation, decoupling, and reshoring of critical industries, in part because of protectionist policies by the United States, China, and other actors.¹ This chapter describes these changes and examines what they mean for Taiwan's integration with the Chinese market and world economy, for Taiwan's future as a global technology hub, and for the Taiwanese people. Intended to make democratic societies, especially the United States, more resilient, the policies driving "decoupling" have made economic and societal resilience even more difficult for Taiwan to enhance and may be producing a backlash on the island against the global liberal order and the commercial networks of which Taiwan is a part.

Taiwan's economic success has relied on deep integration with the global economy and especially China through export-oriented manufacturing.

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¹ "Decoupling" is a contested term in policy discussions on U.S.-China relations. In this chapter, it refers to the steady reduction of economic and technological interdependence with China, with broader strategic implications. Recently, "de-risking" has become more accepted in policy discussions in Europe and focuses primarily on economic diversification away from China. See Paul Gewirtz, "Words and Policies: 'De-risking' and China Policy," Brookings Institution, May 30, 2023, <https://www.brookings.edu/articles/words-and-policies-de-risking-and-china-policy>.

Taiwanese businesses had the capital, expertise, cultural proximity, and operational capabilities to enhance Taiwan's international competitiveness by investing in China—despite restrictions by the Taiwanese government and little legal protection from China. As globalization reverses, Taiwanese firms, especially in technology, have been among the first affected by tariffs, export controls, and investment restrictions on China as well as disruptions caused by the ongoing Covid-19 pandemic. In addition, lagging domestic consumption, rising labor costs, and tightening social controls in the Chinese market make it less lucrative and riskier. However, Taiwanese businesses have found few alternatives, even with mounting U.S. pressure to move away from China. Many Taiwanese agree with diversification in principle but disagree on how it should be conducted and at what speed.

The global semiconductor ecosystem, in which Taiwan is a leader, is the most important example of how fragmentation threatens global resilience. Public-private partnership in Taiwan pioneered the contract manufacturing model, enabling a globally interdependent value chain in which technology firms worldwide depend on Taiwan's foundries to manufacture integrated circuit chips, especially through severe shortages during the Covid-19 pandemic. However, the United States, the European Union, and China now view this interdependence as a source of instability rather than resilience, investing in reshoring the supply chain within their own borders, enacting protectionist policies on intellectual property (IP), and approaching the technology industry—from human capital to chip manufacturing—from a national security perspective. Broad export controls, which have affected many sectors globally, have forced the semiconductor supply chain to reconfigure at immense costs for all parties, especially Taiwanese firms, which are also losing investor confidence as tensions rise in the Taiwan Strait. If the objective of U.S. policymakers is to slow Chinese development in dual-use technology (with both civilian and military applications), Taiwanese—in both the public and private sectors—must be treated as partners to build a more resilient global economy.

While proud of their country's economic and technological development, Taiwanese voters are keenly aware that the Taiwanese economy's dependence on the information and communications technology (ICT) industry means walking a tightrope between Washington and Beijing. And some Taiwanese believe that decoupling will reduce Taiwan's economic resilience and exacerbate Taiwan's domestic structural problems. Voters are reassessing the reliability of the United States as a strategic partner and the suitability of Washington's advice on weapons acquisition and defense strategy. Furthermore, continued exclusion from global trade and health regimes leaves Taiwan vulnerable to future economic and health crises. Both major political

parties—the Democratic Progressive Party (DPP) and the Kuomintang (KMT)—as well as third parties all reject China’s “one country, two systems” formulation for Taiwan, but they offer few alternatives for cross-strait relations.

A successful and resilient Taiwan can be a stronger partner to the United States technologically and economically while remaining an example of a Chinese society espousing democratic values. Taiwan has relied on innovation to navigate changing geopolitical and economic landscapes by closely integrating with the global economy, encouraging talent circulation, and promoting public-private collaboration. Economic fragmentation, deteriorating trust in international society, and domestic political polarization are eroding the foundations of Taiwan’s success, even as China poses a growing threat to the island. To counter increasing marginalization in the global political economy, Taiwan needs more integration with the United States and the Asia-Pacific to design and implement effective policy that promotes freedom and democracy. This requires civic engagement in policymaking as well as independent and innovative thinking on how to navigate a changing geopolitical landscape, enabling all of Taiwanese society to contribute to making U.S. policy successful.

This chapter begins with a review of structural trends in Taiwan’s foreign economic relationships and the evolving patterns of economic interdependence with China. It then focuses on the evolution of Taiwan’s semiconductor industry within the context of U.S.-China strategic competition and the pressure the industry faces to decouple from China. Subsequently, the chapter discusses the implications of Beijing’s and Washington’s policies toward Taiwan and the dynamics of its domestic socioeconomic and political landscape leading up to the 2024 election. The chapter concludes with a discussion of the future of the Taiwan-U.S. partnership, assessing the prospects for Taiwan as it faces decoupling and considering policy options for the United States.

Taiwan Reconsiders Cross-Strait Interdependence

Taiwan’s Economic Development

Taiwan’s economic success relied on deep integration with the international economy during the Cold War and especially with China since the late 1980s. Over the last three decades, Taiwan’s economy took off, with its export-oriented manufacturing sectors helping further expand its international trade. Taiwan’s export-to-GDP ratio increased from

approximately 40% in the 1990s to over 60% in 2022.² Exports in the past three decades have predominantly been in the industrial sector, compared with only 1% in agricultural products. The composition of industrial exports has also changed substantially, with textiles dwindling from over 20% in 1980 to only 2% currently. In the same period, machinery and electrical equipment have grown from around 20% to over 60% of Taiwan's total exports, consisting primarily of ICT products and electronic components, which are also the majority of Taiwan's total imports. Mineral fuels, including coal, petroleum, and natural gas, constituted 20% of Taiwan's imported goods in 2022, rising from approximately 10% in 2001, reflecting a growing demand for and dependence on imported energy to fuel Taiwan's rapid industrial development.

With the establishment of its first science-based industrial park in 1979 in Hsinchu, Taiwan began developing capital- and technology-intensive industries, particularly in electronics and ICT. The ICT sector now constitutes 40% of the country's GDP, led by a highly competitive semiconductor industry, which now supplies over 60% of the world's integrated circuit chips and over 90% of the most advanced ones.³

The evolving pattern in exports aligns with trends in Taiwan's overseas investments. Starting in the 1990s, outward foreign direct investment gradually shifted from mining and light industries toward capital-intensive electronics and ICT manufacturing. This sector now accounts for one-fifth of Taiwan's cumulative outbound FDI.⁴ The top destination of outward FDI had been Southeast Asia until the 1970s, when it was replaced by the United States. After China's reform and opening, Taiwan began to invest heavily in China, which soon eclipsed the United States as its top investment destination.

Growing Interdependence with China through the Taishang

Early in China's reform and opening in the 1980s, the growth of the country's cheap and educated labor force, known as the "demographic dividend," offered Taiwanese businesses an immense opportunity to drive down manufacturing costs by making China the world's factory.⁵ Beijing

² Trade data is from the Ministry of Finance (Taiwan), and GDP data is from the Executive Yuan (Taiwan), Directorate General of Budget, Accounting and Statistics.

³ "Taiwan's Dominance of the Chip Industry Makes It More Important," *Economist*, March 6, 2023, <https://www.economist.com/special-report/2023/03/06/taiwans-dominance-of-the-chip-industry-makes-it-more-important>.

⁴ Ministry of Economic Affairs (Taiwan), Investment Commission.

⁵ Cai Fang, "How Has the Chinese Economy Capitalised on the Demographic Dividend during the Reform Period?" in *China's 40 Years of Reform and Development: 1978–2018*, ed. Ross Garnaut, Ligang Song, and Cai Fang (Acton: Australian National University Press, 2018), 235–56.

further encouraged cross-strait interdependence through incentives and subsidies such as tax deductions and reduced land rental fees for foreign investors and especially Taiwanese entrepreneurs.⁶ Known as Taishang, these Taiwanese businesspeople found China extremely friendly, given the cultural and linguistic familiarity and geographic proximity. Along with overseas Chinese from Southeast Asia and Hong Kong, the Taishang applied their financial capital, technical expertise, and operational know-how to build economies of scale by producing in China. Establishing industrial clusters throughout the coastal cities, they set up local supply chains and became deeply embedded in the Chinese economy as exporters who could respond to shifting global demands with agility and efficiency, serving primarily multinational corporations.

More recently, as the Chinese middle class grew and its spending power increased, Taiwanese firms began investing in retail for the Chinese consumer market. Many Taishang who had originally focused on export markets began to build capacity to manufacture and promote their own brands for the Chinese market. They also began entering the service and hospitality industries by opening restaurants and hotels. Taiwanese technology firms invested heavily in China, starting with laptop manufacturers and later the semiconductor industry.⁷

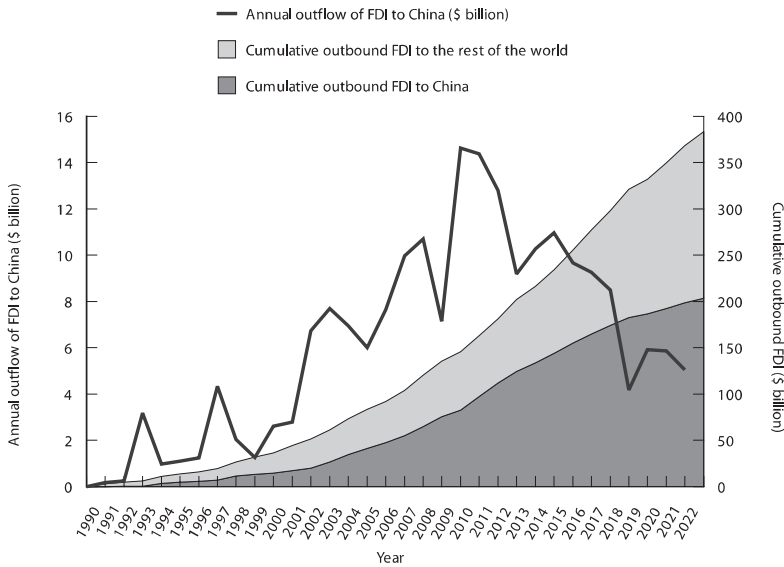
Business expansion into China has continued to grow since 1991, with cumulative investments in China exceeding two-thirds of Taiwan's total outward FDI at its height in 2011 (see **Figure 1**). Although investment flows have slowed substantially during the Covid-19 pandemic, over \$200 billion of the cumulative \$380 billion in Taiwanese FDI remained in China as of 2022, with over 30% in the ICT sector.⁸ Despite constant tension in the Taiwan Strait, the market attraction of China—first as a low-cost manufacturing base with high productivity and later as the world's largest consumer market—outweighed the risks for Taiwanese businesses. Furthermore, with the launch of Xi Jinping's Made in China 2025 initiative in 2015 to encourage indigenous competition, remaining in China became even more crucial for multinational corporations and Taishang alike, who must ensure their products are “made in China” to continue selling to Chinese consumers. With competition

⁶ Syaru Shirley Lin, *Taiwan's China Dilemma: Contested Identities and Multiple Interests in Taiwan's Cross-Strait Economic Policy* (Stanford: Stanford University Press, 2016), 61.

⁷ The Taiwanese personal computer industry started investing in China in the 1990s, but semiconductor companies were not allowed to invest in China until the early 2000s. See Chyan Yang and Hung Shiu-Wan, “Taiwan's Dilemma Across the Strait: Lifting the Ban on Semiconductor Investment in China,” *Asian Survey* 43, no. 4 (2003): 681–96.

⁸ Chad P. Bown and Yilin Wang, “Taiwan's Outbound Foreign Investment, Particularly in Tech, Continues to Go to Mainland China Despite Strict Controls,” Peterson Institute for International Economics, February 27, 2023, <https://www.piie.com/research/piie-charts/taiwans-outbound-foreign-investment-particularly-tech-continues-go-mainland>.

FIGURE 1 Taiwan's outbound FDI to the world and to China, 1990–2022



SOURCE: Ministry of Economic Affairs (Taiwan), Investment Commission.

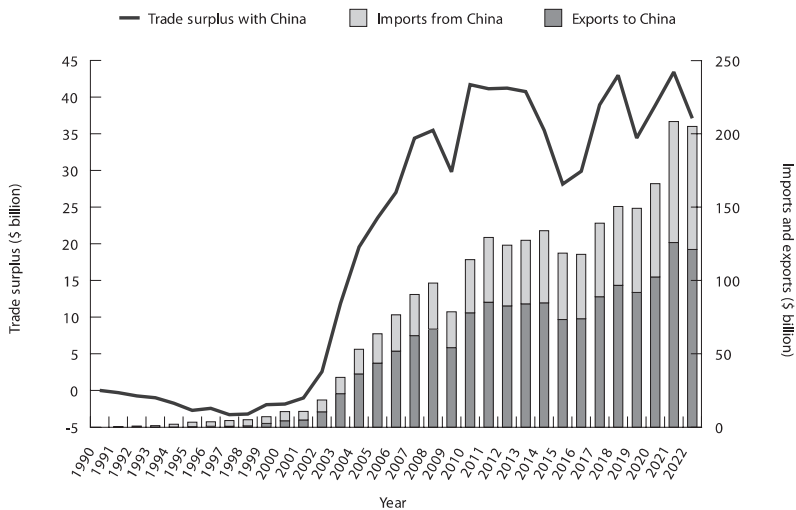
increasing from domestic businesses (often with Beijing's support) to form a "red supply chain," Taishang have been losing market share, but few other markets are as attractive as China's.⁹

As Taiwan's investments in China have increased, the share of its bilateral trade with China has increased to approximately 25% (over 40% if trade with Hong Kong is included) of total trade. Total trade with China surpassed that with the United States in 2004, making China Taiwan's largest trading partner. Despite declining investments in China over the last seven years due to Taiwanese government pressure and rising costs in China's coastal cities, Taiwan's trade surplus with China reached an all-time high of \$43 billion in 2021 (see **Figure 2**). That same year, its trade surplus with the United States was only \$26 billion.¹⁰

⁹ Hannah Chang, "Taiwan Businesses: Exiting China Not an Option amid Struggle for Survival," *CommonWealth Magazine*, July 8, 2021, <https://english.cw.com.tw/article/article.action?id=3030>.

¹⁰ Ministry of Finance (Taiwan), Trade Statistics Database.

FIGURE 2 Taiwan's trade with China, 1990–2022



SOURCE: Ministry of Finance (Taiwan), Trade Statistics Database.

Despite growing cross-strait economic interdependence, in 2014 young Taiwanese people led a wave of protests against further liberalization of trade and services with China through the Cross-Strait Service Trade Agreement, which was a follow-up agreement under the Economic Cooperation Framework Agreement (ECFA) developed and signed under KMT president Ma Ying-jeou.¹¹ In the aftermath of these protests, dubbed the Sunflower Movement, Taiwanese voters in 2016 elected President Tsai Ing-wen, whose DPP administration vowed to uphold Taiwan's sovereignty and counter infiltration by Beijing. To diversify away from China, President Tsai began to promote investments in Southeast Asia under the New Southbound Policy (NSP) and attract Taishang to reinvest in Taiwan through incentives and subsidies. In President Tsai's second term (2020–24), the policy has resulted in more frequent people-to-people exchanges and increased investments in Southeast Asia, with total investments in NSP countries now a quarter of

¹¹ JoAnn Fan, "The Economics of the Cross-Strait Services Agreement," *Diplomat*, April 18, 2014, <https://thediplomat.com/2014/04/the-economics-of-the-cross-strait-services-agreement>.

Taiwan's cumulative outward FDI at \$50 billion.¹² In 2022, new Taiwanese investments in NSP countries exceeded \$5 billion, surpassing investments in China for the first time.¹³ Taiwanese investments in the United States and Europe are also increasing, although not as quickly as in NSP countries. Since 2019, the Tsai administration's three major programs to help Taishang reinvest in Taiwan have attracted over \$60 billion from overseas Taiwanese.¹⁴ Overall, the recent decline in Taiwanese investment flow to China mirrors a general decrease in global investments in China, which in 2022 declined to their lowest level in eighteen years.¹⁵

For Taiwanese firms, expansion into China now involves risks and restrictions far greater than those facing other foreign competitors. In the 1980s the Chinese government offered incentives to foreign investors through preferential land use and tax policies in special economic zones along China's coast. However, despite the regulations offering nominal legal protection to foreign firms, Taiwanese firms in reality faced great legal risk because they were deemed "Chinese," and the Taiwanese government could not protect Taishang legally.¹⁶ Furthermore, Taiwanese investment in China has always been subject to scrutiny by the Taiwanese government, especially in sectors considered to have national strategic importance. Investments in strategic industries—namely petrochemicals and semiconductors—and any investment over \$50 million in China still require approval. Semiconductor investments in China were essentially banned by Taipei until 2002. Both the United States and Taiwan have long-standing restrictions on leading-edge semiconductor technology entering China, and Taiwan has effectively stopped the most advanced technologies from moving to China.¹⁷

Taiwan Caught in U.S.-China Decoupling

Even when facing these regulatory constraints, Taishang have been flexible and resilient, seizing opportunities in China faster than their competitors. However, as the Trump administration began to view China

¹² Satu Limaye, Robert Wang, and Russell Hsiao, "Assessing Trends and Demand Signals for Taiwan's New Southbound Policy and Building a U.S.-Taiwan Coordination Mechanism," Taiwan-Asia Exchange Foundation, January 30, 2023, <https://www.taef.org/doc/1082>.

¹³ Ministry of Economic Affairs (Taiwan), Investment Commission.

¹⁴ "Three Major Programs for Investing in Taiwan," Ministry of Economic Affairs (Taiwan), InvestTaiwan, <https://investtaiwan.nat.gov.tw/showPagecht1135?lang=eng&search=1135>.

¹⁵ Iori Kawate, "Foreign Investment in China Slumps to 18-Year Low," *Nikkei Asia*, February 28, 2023, <https://asia.nikkei.com/Economy/Foreign-investment-in-China-slumps-to-18-year-low>.

¹⁶ Shelley Rigger, *The Tiger Leading the Dragon: How Taiwan Propelled China's Economic Rise* (Lanham: Rowman and Littlefield, 2021), 38.

¹⁷ Lin, *Taiwan's China Dilemma*, 72, 156.

as a strategic competitor, the United States increasingly enacted restrictive measures to contain Chinese economic development. Taiwanese and other foreign firms were hurt immediately, initially by global tariffs on steel and textiles and subsequently by export controls, sanctions, and investment restrictions. Technology companies were also hard hit. In the name of national security and resilience, the United States is leading the global economy toward regionalization and segregation, viewing its R&D, production, and human capital as assets that must reside in a “small yard with a high fence.”¹⁸ This strategy necessitates supply chain duplication in every region. The Covid-19 pandemic, which severely disrupted global supply chains, further exacerbated this trend.

The U.S. restrictions mirror China’s long-held strategy even after China joined the World Trade Organization in 2001—welcoming trade and investments but implementing top-down regulation to keep economies segregated to benefit China’s “catching up” and economic sovereignty. Despite these challenges, for Taiwanese manufacturers who serve large multinational clients, there seems to be no readily available alternative to China. Foxconn, the leading Taishang in China, is a case in point. Foxconn supplies 95% of Apple’s iPhones and computers and is deeply embedded in the Chinese economy, which constitutes nearly a quarter of Apple’s global sales.¹⁹ Pursuing just-in-time manufacturing efficiency and flexibility at an immense scale, the company has recently doubled down by setting up a new global business center in Zhengzhou in central China, where it runs the world’s biggest iPhone factory.²⁰ Although Foxconn tried to diversify away from China, surveying Europe, Vietnam, and India and agreeing to invest in Wisconsin in 2017, little has come of these investment plans.²¹

Furthermore, China remains a gateway for Taiwan to participate in cost-efficient regional trade, especially given that Taiwan does not have access to regional free trade agreements (FTAs) such as the Regional Comprehensive Economic Partnership (RCEP). Signed in 2020, the RCEP is the world’s

¹⁸ “Remarks by National Security Advisor Jake Sullivan on the Biden-Harris Administration’s National Security Strategy,” White House, October 12, 2022, <https://www.whitehouse.gov/briefing-room/speeches-remarks/2022/10/13/remarks-by-national-security-advisor-jake-sullivan-on-the-biden-harris-administrations-national-security-strategy>.

¹⁹ Patrick McGee, “How Apple Tied Its Fortunes to China,” *Financial Times*, January 17, 2023, <https://www.ft.com/content/d5a80891-b27d-4110-90c9-561b7836f11b>.

²⁰ Ben Jiang, “Apple Supplier Foxconn Sets Up Global Business Base in iPhone City in Show of Commitment to China,” *South China Morning Post*, April 25, 2023, <https://www.scmp.com/tech/policy/article/3218313/apple-supplier-foxconn-sets-global-business-base-iphone-city-show-commitment-china>.

²¹ Lauly Li, “Foxconn Aims to Build EV Factories in Europe and India by 2024,” *Nikkei Asia*, October 20, 2021, <https://asia.nikkei.com/Business/Technology/Foxconn-aims-to-build-EV-factories-in-Europe-and-India-by-2024>.

largest FTA and includes all ten members of the Association of Southeast Asian Nations (ASEAN) plus Australia, New Zealand, Japan, South Korea, and China. Taiwan's exclusion means that its exports from China to ASEAN countries benefit from more preferential tariffs than those from Taiwan do. This grants Taishang investments in China easier access to the ASEAN market through China's trade advantages with those countries.²² Taiwan applied to join the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) in September 2021, just after China's bid; yet whether Taiwan can join remains uncertain because of China's objection.²³

Despite the advantages the Chinese economy still offers Taishang, it is increasingly difficult to navigate. As China confronts a range of domestic socioeconomic challenges, including rising inequality, high public and private debt, and youth unemployment, Xi Jinping has sought to restructure the economy in ways that exact a large toll on the private sector. As a result of the Covid-19 pandemic and increasing restrictions by the United States, foreign and domestic firms alike in China are operating under severe political stress while facing lagging domestic consumption, rising labor costs, and tightening social and political control.

Navigating Changes in the Global Semiconductor Industry

Taiwanese businesses have excelled at precision and low-cost manufacturing in the ICT sector, which has led Taiwan's economic growth. Central to this sector is the semiconductor industry, which has become the foundation for all new technologies. The global semiconductor ecosystem, in which Taiwan plays a vital role, is the most important example of the current trend of fragmentation threatening global resilience, especially as U.S.-China strategic competition intensifies. With lower-cost engineers, a precision hardware manufacturing culture, trust from U.S. and European customers, and a just-in-time delivery mindset, Taiwanese firms that manufacture for global brands became a leader and soon extended its highly successful business model to China. Taiwanese semiconductor companies' footprint in the Chinese market has always been closely scrutinized by the Taiwanese people and government and is now under pressure from the United States, China, and other major economies that have moved from

²² Lotta Danielsson, "The Importance of a U.S.-Taiwan Bilateral Trade Agreement," National Bureau of Asian Research (NBR), December 21, 2020, <https://www.nbr.org/publication/the-importance-of-a-u-s-taiwan-bilateral-trade-agreement>.

²³ Kathrin Hille and Edward White, "Taiwan Follows China with Bid to Join Transpacific Trade Pact," *Financial Times*, September 23, 2021, <https://www.ft.com/content/cc1e4e0a-803d-43be-9f4d-ba9980a5c203>.

engagement to strategic competition, threatening the sustainability of the entire semiconductor industry. The decoupling threat comes on multiple fronts. Lower-end ICT and semiconductor manufacturers are increasingly squeezed by indigenous Chinese firms, which are catching up technologically. For the most advanced technologies, the indispensability of Taiwan's leading foundries and chip design houses has suddenly become a national security issue for economies concerned about China's ability and will to unify with Taiwan and seize control over its semiconductor industry.

Semiconductors are critical components of nearly all modern electronic systems and devices, and their military applications make them key to national security. For four decades, China has been able to force technology transfer, attract direct investment, and hire international talent, including approximately three thousand Taiwanese engineers as of 2019, to become a technological powerhouse.²⁴ Although U.S.-imposed controls limit the Chinese semiconductor industry's technological advancement in processing, which remains two generations behind that of the United States, Chinese capabilities have continued to grow.

Taiwanese companies in China have always been highly regulated. Since 2002, the Taiwanese government has allowed semiconductor firms to invest in China but regulated their production scale and limited the process technologies that could be transferred. As demonstrated by the intense debate during Taiwan's elections on permitting semiconductor investments in China, Taiwanese voters have always viewed such strategic investments with skepticism, favoring high barriers to ensure that semiconductor companies were delayed in entering China, even as U.S. companies such as Intel and domestic players emerged in the Chinese market. Only a handful of investments have ever been approved; leading foundries, including Taiwan Semiconductor Manufacturing Company (TSMC) and United Microelectronics Corporation (UMC), entered first, followed by many other Taiwanese firms in the semiconductor supply chain.²⁵ Today, China is the largest producer of older-generation or legacy chips, but it still imports the most advanced chips from TSMC, which manufactures 92% of its chips in Taiwan.²⁶ China has become the largest end market for semiconductors, which fuel the country's industries in telecommunications, electric vehicles, and solar panels, as well as artificial intelligence (AI) and the military.

²⁴ Kensaku Ihara, "Taiwan Loses 3,000 Chip Engineers to 'Made in China 2025,'" *Nikkei Asia*, December 3, 2019, <https://asia.nikkei.com/Business/China-tech/Taiwan-loses-3-000-chip-engineers-to-Made-in-China-2025>.

²⁵ Lin, *Taiwan's China Dilemma*, 156.

²⁶ Katie Tarasov, "Inside TSMC, the Taiwanese Chipmaking Giant That's Building a New Plant in Phoenix," *CNBC*, November 8, 2022, <https://www.cnbc.com/2021/10/16/tsmc-taiwanese-chipmaker-ramping-production-to-end-chip-shortage.html>.

Creating Foundries by Leveraging the Global Semiconductor Supply Chain

The semiconductor industry is a successful example of public-private collaboration in the United States. Such partnerships have driven U.S. technological leadership and fueled an entire innovation ecosystem of academic research, venture capital, and talent attraction concentrated in Silicon Valley.²⁷ As Japan, South Korea, and Taiwan entered the industry starting in the 1970s as contract manufacturers, the technologies and related IP were retained by the manufacturers' U.S. customers, who invested heavily in R&D.

Taiwan then pioneered the contract manufacturing model that has enabled rapid innovation and the cost-effective, at-scale production of integrated circuit chips. As Taiwan invested further in its export-oriented sector and selected "ten major industries" for investment across basic and heavy industry in the 1960s and 1970s, the government also established the Industrial Technology Research Institute (ITRI) to upgrade Taiwan's industries through technological innovation. ITRI's work with partners in the United States transferred technology and know-how in integrated circuit design, manufacturing, and assembly, testing, and packaging (ATP) to Taiwan. In 1987, TSMC was founded with ITRI's support to manufacture chips under contract with other companies. This business model revolutionized an industry that until then comprised only integrated device manufacturers such as Intel, which managed the entire process of producing devices and their integrated circuit chips in-house, from planning and design to manufacturing and testing. As semiconductors became integral parts of consumer goods, the pure-play foundry model pioneered by TSMC and supported by industrial clustering through ITRI's investments and projects enabled fabrication plants ("fabs") to specialize in the capital-intensive and highly precise fabrication step of chip production. In turn, companies worldwide could save costs by going "fabless," specializing in innovative R&D and chip design. Global brands and design firms such as Qualcomm and Apple have flourished because they could trust Taiwanese foundries to produce their products' chips cost-effectively.

This business model and industrial clustering created an ecosystem of firms of all sizes driving innovation and growth in the industry worldwide and especially in Taiwan, resulting in a globally segmented but highly interdependent value chain. The United States and Europe, as well as a group of Taiwanese firms, lead the world in R&D and fabless chip design, outsourcing fabrication to the Asia-Pacific, where Taiwan leads in producing logic chips

²⁷ Sebastian Mallaby, *The Power Law: Venture Capital and the Making of the New Future* (New York: Penguin Press, 2022), 1–39.

(i.e., processors) and South Korea leads in memory chips. Reserves of silicon, wafers of which form the base of an integrated circuit, and gallium, which is increasingly used as a more efficient alternative to silicon, are mainly based in China. Europe plays a large role in supplying the chemical components of semiconductor production. TSMC and UMC retain most of their production in Taiwan, especially for TSMC's most advanced chips. Yet they also have fabs in Singapore, Japan, and China. Fabs use highly specialized semiconductor manufacturing equipment produced and serviced by a handful of companies, including ASML in the Netherlands, Applied Materials and Lam Research in the United States, and Tokyo Electron in Japan. ATP also occurs largely in Taiwan, China, and Southeast Asia, where labor costs are low.

Taiwan's semiconductor prominence extends beyond manufacturing, with strengths in R&D, design, and ATP. Over the last 40 years, the government, private sector, and higher education system have invested the capital, time, and expertise to support the ICT ecosystem, making the sector Taiwan's primary driver of economic growth and Taiwan the world's primary chip supplier.²⁸ Taiwanese firms also account for over half of the world's ATP market share.²⁹ R&D and design houses such as MediaTek, a competitor to U.S. mobile chip designer Qualcomm, plus the small and medium-sized enterprises that supply fabs with wafers and other inputs, also established themselves in the island's industrial and science parks. The ICT sector employs most of Taiwan's engineering graduates, who earn much higher salaries than their peers in other industries but work longer hours, even by East Asian standards. TSMC alone must hire thousands of new master's and PhD graduates each year. Taiwan now faces a shortage of local semiconductor talent, with declining interest in STEM fields and a shrinking population that threatens the long-term expansion of the industry.³⁰

Concentrated growth in the ICT sector continued through the Covid-19 pandemic. As lockdowns and economic slowdowns disrupted supply chains worldwide, Taiwan used proactive border controls and effective quarantining and contact-tracing protocols that prevented the virus from spreading during the first eighteen months of the pandemic. Consequently, the foundries continued to supply the world with chips, and Taiwan's economy enjoyed

²⁸ Kharis Templeman and Oriana Skylar Mastro, "Deepening U.S.-Taiwan Cooperation through Semiconductors," in *Silicon Triangle: The United States, Taiwan, China, and Global Semiconductor Security*, ed. Larry Diamond, James O. Ellis Jr., and Orville Schell (Stanford: Hoover Institution Press, 2023).

²⁹ "Overview on Taiwan Semiconductor Industry (2023 Edition)," Taiwan Semiconductor Industry Association, June 14, 2023, <https://www.tsia.org.tw/api/DownloadOverview?ID=33>.

³⁰ Lee Chee Yang, "Taiwan Lacks Young Passionate Workers in Semiconductor Industry," ThinkChina, November 7, 2022, <https://www.thinkchina.sg/taiwan-lacks-young-passionate-workers-semiconductor-industry>.

decade-high economic growth of 3% and 6.57% in 2020 and 2021, respectively, whereas the Japan, Singapore, and Hong Kong economies all shrank.³¹

Despite Taiwan's ability to keep its population healthy and its fabs operating during the pandemic, the sudden increase in global demand for automobiles and consumer electronics in 2020 and 2021 caused bottlenecks in the supply chain and global shortages of semiconductors. Against the backdrop of deteriorating U.S.-China relations and supply chain fragility exposed by the pandemic, the United States, the EU, and China started to view the concentration of manufacturing in Taiwan for processing logic chips and South Korea for memory chips, as well as the global dispersion of the supply chain, as sources of instability. Moreover, the United States and its Western allies view Taiwan as a security risk because of the threat that China could use force to achieve unification.

For many in the U.S. government and private sector, this presents an opportunity to return the semiconductor industry to the United States, which has had few successful foundries. Intel, the United States' semiconductor leader and an integrated device manufacturer, announced in 2021 a new business arm, Intel Foundry Services, that will compete with TSMC, Samsung, and UMC for clients. While rising tension across the Taiwan Strait is perceived to be a risk to TSMC, it also enables U.S. firms such as Intel to argue for a geographically balanced semiconductor supply chain.³²

Changing Semiconductor Policies: National Security through Economic Resilience

The United States, the EU, and Japan are all targeting economic resilience in semiconductors by encouraging onshoring through subsidies and other incentives, enhanced by policies to protect trade secrets and IP. China is also investing heavily in its own technology sector to become a world economic leader and escape the middle-income trap while responding to Western trade controls with both incentivizing and protective policies of its own. The new policy environment is challenging for Taiwan's government and private sector to navigate, and whether U.S. policies can successfully establish a robust supply chain in the United States remains unclear.

Since 2016, the United States has aimed to slow China's rise as a technological power and retain leadership with its allies and partners in the global economy by staying on the leading edge of innovation. Reaching this

³¹ International Monetary Fund, World Economic Outlook Database, April 2023 edition, <https://www.imf.org/en/Publications/WEO/weo-database/2023/April>.

³² Yifan Yu and Ting-Fang Cheng, "How Intel Plans to Rival TSMC and Samsung as a Chip Supplier," *Nikkei Asia*, December 3, 2019, <https://asia.nikkei.com/Business/Business-Spotlight/How-Intel-plans-to-rival-TSMC-and-Samsung-as-a-chip-supplier>.

goal has involved substantial investment in domestic manufacturing and R&D capacity, as well as preventing advanced technology from reaching China by working with Western partners to ensure compliance. Since 2017, these policies have targeted Chinese technology companies, such as telecommunications firms Huawei and ZTE, because of concerns that they could engage in espionage, steal IP, and violate trade rules. In May 2020, a further ban on foreign semiconductor manufacturers from shipping products that use American technology to Huawei implicated TSMC, which was a major supplier to Huawei. That same month, TSMC made twin announcements that it would build a fab in the U.S. state of Arizona and stop supplying Huawei to comply with U.S. sanctions. In 2023, TSMC made further commitments to build fabs in Kumamoto, Japan, and Dresden, Germany.³³

The cancellation of Huawei orders and similar restrictions halved TSMC's revenue from China, its second-largest market after the United States, from 20% to 10% of its total revenue in 2021.³⁴ Although TSMC was able to quickly recover from lost Huawei sales due to high demand for chips from competitors such as Apple to reach \$74 billion, its withdrawal still comes at the cost of rebuilding a semiconductor supply chain in the United States. TSMC's Arizona fab is already experiencing construction delays due to a shortage of workers with the specific expertise to build a foundry and high costs in the United States.³⁵ Replicating Taiwan's foundry success is highly complex and requires a supply chain of many small and medium-sized firms, multiple sources of talent, workers beyond engineers with PhDs, and reliable sources of utilities and raw materials. Subsidies and incentives cannot create this industrial clustering overnight.³⁶

China has been trying to replicate Taiwan's success in semiconductors for 30 years with little progress. Even with heavy investments in integrated chip production and STEM education, China has been unable to develop its own technology to compete effectively with the West. China realizes that the industry depends highly on talent. Even with the right equipment, insufficient talent to develop advanced processes with a precision manufacturing mindset has hampered the profitability and efficiency of

³³ Cheng Ting-Fang and Lauly Li, "TSMC Reveals \$11 Billion Deal to Build First European Chip Plant," *Nikkei Asia*, August 8, 2023, <https://asia.nikkei.com/Business/Tech/Semiconductors/TSMC-reveals-11-billion-deal-to-build-first-European-chip-plant>.

³⁴ TSMC, "TSMC Annual Report 2022," March 12, 2023, <https://investor.tsmc.com/sites/ir/annual-report/2022/2022%20Annual%20Report-E.pdf>.

³⁵ Nicholas Gordon, "TSMC Complains It Can't Find Enough Skilled Workers to Get Its Arizona Chip Plants Ready in Time, Delaying Mass Production to 2025," *Fortune*, July 21, 2023, <https://fortune.com/2023/07/21/tsmc-complains-cant-find-enough-skilled-workers-arizona-chip-plants-ready-delay-mass-production-2025>.

³⁶ Jordan McGillis and Clay Robinson, "Why the CHIPS Act Will Fail," *National Review*, May 11, 2023, <https://www.nationalreview.com/magazine/2023/05/29/why-the-chips-act-will-fail>.

legacy chip production in China. In 2000, China enticed Richard Chang, a U.S.-trained Taiwanese engineer, to establish Semiconductor Manufacturing International Corporation in Shanghai. He was later joined by other former TSMC engineers, including co-executive Liang Mong Song and former vice chair Chiang Shang-yi. This aggressive recruitment of Taiwanese engineers has raised concerns in Taipei about the potential transfer of proprietary knowledge to China.³⁷ Meanwhile, intensifying tensions across the Taiwan Strait and an increasingly repressive domestic environment are making China less appealing to Taiwanese workers.³⁸

Given China's goals of innovation leadership and self-sufficiency, U.S. policy has prioritized investing in the United States' own technological edge and blocking China from benefiting from it. The CHIPS (Creating Helpful Incentives to Produce Semiconductors) and Science Act, signed into law in August 2022, broadly allocates \$280 billion to upgrade U.S. competitiveness in semiconductors, with \$52.7 billion designated to increasing manufacturing capability on U.S. soil as well as funding R&D, education, workforce development, defense, and international security activities to maintain U.S. leadership in semiconductor innovation. Notably, the act has guardrails to ensure that firms receiving U.S. federal subsidies are restricted for ten years from further expansion in China for leading-edge and advanced facilities. A separate set of export controls announced by the Department of Commerce in October 2022 further restricted the export of advanced logic, dynamic random-access memory (DRAM), and NAND flash chips to China and the licensing of certain U.S. technologies used for semiconductor and supercomputer development to China-owned technology companies.³⁹

By December 2022, 36 Chinese companies had been added to the Department of Commerce's entity list, which restricts exports to foreign companies that pose a risk to U.S. national security. Additionally, the Biden administration signed an executive order initiating a "reverse-Committee on Foreign Investment in the United States" process to review U.S. outbound investments to China in sensitive technologies with critical military,

³⁷ Yimou Lee, "Taiwan Raids Chinese Firms in Latest Crackdown on Chip Engineer-Poaching," Reuters, May 26, 2022, <https://www.reuters.com/technology/taiwan-raids-chinese-firms-latest-crackdown-chip-engineer-poaching-2022-05-26>.

³⁸ Jane Perlez, Amy Chang Chien, and John Liu, "Engineers from Taiwan Bolstered China's Chip Industry. Now They're Leaving," *New York Times*, November 16, 2022, <https://www.nytimes.com/2022/11/16/business/taiwan-china-semiconductors.html>.

³⁹ Gregory C. Allen, "Choking Off China's Access to the Future of AI," Center for Strategic and International Studies, October 11, 2022, <https://www.csis.org/analysis/choking-chinas-access-future-ai>.

intelligence, surveillance, and cyber-enabled capabilities.⁴⁰ The United States has negotiated with European and Japanese semiconductor manufacturing equipment firms to similarly block the sale and servicing of certain equipment in China, with Japan and the Netherlands enacting restrictions to comply with U.S. regulations in 2023. These restrictions have effects across the supply chain because a handful of companies in the West have the proprietary technology that all manufacturers need.

With global fragmentation and protectionist U.S. policies accelerating, Taiwan's chip firms now face pressure on both the contracting and sales sides of their businesses. Because Taiwanese policy has limited chipmakers' ability to offshore high-tech capabilities to China, the most advanced chip manufacturing remains in Taiwan. TSMC and UMC operate fabs in China only for older, mature-node chips. U.S. export controls place Taiwanese manufacturers in a bind because the policies limit the sale of chips based on American IP to China, and foundries are restricted from selling to Chinese companies even through intermediaries. Moreover, Taiwanese firms are under closer scrutiny than their U.S. peers because U.S. officials have long viewed Taiwan as a loophole through which China can access technology and talent. For example, in 2018, UMC was indicted by the Department of Justice for not properly monitoring employees who stole DRAM technology from U.S. memory chip designer Micron and transferred it to UMC's partner in China. UMC eventually reached a settlement in late 2021, paying a fee to Micron. More recently, Chinese firm Phytium Technology reportedly acquired chips from TSMC to conduct research on hypersonic missiles for the Chinese military.⁴¹ Phytium was later placed on the U.S. entity list, and Taipei has banned Taiwanese firms from exporting chips to the company.⁴² Taiwanese companies are thus finding themselves caught between the United States and China because neither side is sympathetic to these firms, and the Taiwanese government cannot advocate for them either.

⁴⁰ "Executive Order on Addressing United States Investments in Certain National Security Technologies and Products in Countries of Concern," White House, August 9, 2023, <https://www.whitehouse.gov/briefing-room/presidential-actions/2023/08/09/executive-order-on-addressing-united-states-investments-in-certain-national-security-technologies-and-products-in-countries-of-concern>.

⁴¹ Ellen Nakashima and Gerry Shih, "China Builds Advanced Weapons Systems Using American Chip Technology," *Washington Post*, April 9, 2021, https://www.washingtonpost.com/national-security/china-hypersonic-missiles-american-technology/2021/04/07/37a6b9be-96fd-11eb-b28d-bfa7bb5cb2a5_story.html.

⁴² Debby Wu, "Taiwan Pledges to Keep Advanced Chips from Chinese Military," *Bloomberg*, October 5, 2022, <https://www.bloomberg.com/news/articles/2022-10-05/taiwan-pledges-to-keep-advanced-chips-from-chinese-military>.

Policy Implications for Taiwan and the United States

U.S. Policy Needs More Consultation with Partners and Allies

Many of the policies discussed in the preceding section were designed and implemented by the United States without consultation with industry leaders—either domestically or abroad—or an understanding of the elements of success and the time frame needed to produce results.⁴³ Among the gravest concerns is that U.S. technology policies will accelerate Beijing's investments in competitive indigenous technology through more subsidies. Along with the United States, Taiwan dominates the integrated circuit design industry, with three of the world's ten largest design companies owning 18% of the global market share.⁴⁴ These companies are only slightly ahead of China, which has 15% of the market share. Even if China cannot produce the most advanced technologies, China may overtake Taiwan and the United States in a large segment of the value chain, starting with integrated circuit design, where it has sufficient talent and can create domestic demand with state support. This view is common among industry associations and leading players who believe that U.S. policy fueling decoupling will only propel China to subsidize the industry even further.⁴⁵

These experiences so far show that duplicating the global semiconductor supply chain at the national level in the United States, China, and Europe is highly questionable. Goldman Sachs Research estimated in October 2022 that the CHIPS Act's incentives could not "fully" support even a 1% increase in U.S. market share of global chip capacity due to higher production costs in the United States compared with Asia. These higher costs result from higher capital expenditures and operational costs as well as lower production efficiency in the United States due to differences in culture and management styles, which have been exposed in the construction delays at TSMC's Arizona fab. While the Goldman Sachs analysts viewed the CHIPS Act as a hedging strategy against future disruptions and geopolitical risk, it may be extremely costly and might not replace Asia's crucial position in the global semiconductor supply chain.⁴⁶ Stopping technology theft and unfair

⁴³ Jane Rickards, "Storm Clouds Ahead for Semiconductor Sector," *Taiwan Business TOPICS*, December 28, 2022, <https://topics.amcham.com.tw/2022/12/storm-clouds-ahead-for-semiconductor-sector>.

⁴⁴ Jack Wu, "IC Design White Paper (2): Global Market Share and Competitive Advantages of Taiwan's IC Design Sector," *DIGITIMES Asia*, March 17, 2023, <https://www.digitimes.com/news/a20230315PD204/ic-design-white-paper-ic-design-mediatek-taiwan.html>.

⁴⁵ See Jenny Leonard and Ian King, "Chip CEOs to Meet Brainard, Sullivan Over China Restrictions," *Bloomberg*, July 18, 2023, <https://www.bloomberg.com/news/articles/2023-07-17/chip-ceos-to-meet-with-biden-officials-over-china-export-rules>.

⁴⁶ "Why the CHIPS Act Is Unlikely to Reduce U.S. Reliance on Asia," *Goldman Sachs Research*, October 26, 2022, <https://www.goldmansachs.com/intelligence/pages/why-the-chips-act-is-unlikely-to-reduce-the-us-reliance-on-asia.html>.

competition against the West by Chinese companies is a desirable U.S. strategy that should have been implemented decades ago. The right policy may finally start to achieve this aim, but it comes at a cost to U.S. and Taiwanese players who are complying with restrictions, with no certainty that results will be time-effective.

As stated earlier, Taiwanese firms are receiving little support from either the United States or their own government. Current U.S. policy seeks to preserve the United States' technological supremacy by demanding that Taiwanese firms reverse their achievements of the last 40 years, transferring their technology and know-how to American soil and stopping sales of chips containing U.S. technologies to Chinese customers. Public-private collaboration brought policy and practice together to drive semiconductor innovation under the KMT's authoritarian rule; however, little collaboration is occurring among different stakeholders in Taiwan, South Korea, Japan, Europe, and the United States to advise U.S. policymakers on how to effectively protect their technology and industry. Joint efforts by Taiwan and the United States are needed to narrow gaps in understanding among U.S. policymakers regarding their expectations and the operational reality of the complex semiconductor ecosystem. The first wave of regulations during the Trump administration mainly created compliance costs, with few benefits for the United States or Taiwan in strategic competition.⁴⁷ The October 2022 policies targeting semiconductors reflect a somewhat more strategic approach by simultaneously leveraging U.S. dominance across different chokepoints of the semiconductor value chain.⁴⁸

If well-designed, export controls and sanctions might give the United States and its allies the advantage they deserve in cutting-edge and especially dual-use technology while allowing the world's consumers to benefit from AI and 5G applications developed globally. Unless policies are undertaken thoughtfully, supply chain duplication will cost taxpayers and consumers and will not stop China's technological theft, resulting in a less secure world and less resilient global economy. The success of U.S. policy initiatives such as the "Chip 4" alliance with South Korea, Japan, and Taiwan will depend on the willingness and ability of those countries to comply. Yet China remains these three countries' largest trading partner and an important production

⁴⁷ Chad P. Bown, "How Trump's Export Curbs on Semiconductors and Equipment Hurt the U.S. Technology Sector," Peterson Institute for International Economics, September 28, 2020, <https://www.piie.com/blogs/trade-and-investment-policy-watch/how-trumps-export-curbs-semiconductors-and-equipment-hurt>.

⁴⁸ Allen, "Choking Off China's Access to the Future of AI."

site for the memory chip industry led by South Korea and the United States.⁴⁹ For Taiwan, common values of democracy and a commitment to the liberal world order are the foundation for the partnership with the United States, but not an excuse for extracting economic benefits. Compliance with U.S. policy must be feasible and beneficial to democratic partners in Asia and Europe, who need to convince their voters that such compliance is in their interest.⁵⁰ This could be achieved through additional intelligence sharing as well as closer economic cooperation through trade and investment agreements including Taiwan to explore markets beyond China, thereby offsetting negative economic impacts.⁵¹

Beijing Policies toward Taiwan: More Sticks and Fewer Carrots

Under Xi Jinping, China has been doubling down on its carrot-and-stick strategy toward Taiwanese businesses. On the one hand, in early 2018, Beijing issued “31 Preferential Policies for Taiwan” to attract and retain Taiwanese investments and businesses in China, followed by another set of “26 Measures for Taiwan” that included R&D in 5G technology and investment in the service sector, intending to utilize the capital and know-how of Taiwanese businesses to fuel the Chinese economy.⁵² On the other hand, Beijing has exerted more political control over the private sector, its own citizens, and the Taishang. For example, a Chinese court imposed fines in 2021 on the Far Eastern Group, which was accused of having links to the DPP.⁵³ Over the last two decades, other Taiwanese companies, such as Chi Mei Corporation,

⁴⁹ Kim Jaewon and Cheng Ting-Fang, “Samsung and SK Hynix Face China Dilemma from U.S. Export Controls,” *Nikkei Asia*, October 25, 2022, <https://asia.nikkei.com/Business/Tech/Semiconductors/Samsung-and-SK-Hynix-face-China-dilemma-from-U.S.-export-controls>; and Molly Schuetz, “Micron Says Half of Sales Tied to China-HQ Clients at Risk,” *Bloomberg*, June 16, 2023, <https://www.bloomberg.com/news/articles/2023-06-16/micron-says-about-half-of-china-hq-customer-revenue-at-risk>.

⁵⁰ Syaru Shirley Lin, “Great Power Competition, Economic Fragmentation and the International Global Order,” Bruegel Annual Meetings, Session 5a, September 6, 2023, <https://www.bruegel.org/annual-meetings/bruegel-annual-meetings-6-7-september-2023>.

⁵¹ Chad P. Bown, “The Return of Export Controls: A Risky Tactic That Requires Cooperation from Allies,” *Foreign Affairs*, January 24, 2023, <https://www.foreignaffairs.com/united-states/return-export-controls>.

⁵² Sarah Zheng, “Beijing Extends Sweeteners for Taiwanese Weeks before Taipei Election,” *South China Morning Post*, November 4, 2019, <https://www.scmp.com/news/china/politics/article/3036194/beijing-extends-sweeteners-taiwanese-weeks-taipei-election>.

⁵³ Feng Ziwei, “Taiwan’s Far Eastern Group Bows to China after Hefty Fines,” *Taiwan News*, November 30, 2021, <https://www.taiwannews.com.tw/en/news/4360495>.

HTC Corporation, and the Hai Pa Wang restaurant chain, have faced pressure from Beijing and were forced to make statements in support of unification.⁵⁴

On the Chinese Communist Party's overall Taiwan policy, Xi has stated that he intends to achieve unification in his lifetime.⁵⁵ China's strategy includes military incursions, gray-zone warfare, and disinformation campaigns, as well as public statements condemning perceived "provocation" by the United States and Taiwan, such as President Tsai's and Vice President William Lai Ching-te's 2023 transit stops in the United States as well as then U.S. House Speaker Nancy Pelosi's visit to Taiwan in August 2022. The frequency of incursions by the People's Liberation Army (PLA) around Taiwan, with expanded operations and combinations of military aircraft and vessels, has increased to an unprecedented level over the past three years. Beijing sent 1,727 planes into Taiwan's air defense identification zone in 2022, compared with 960 in 2021 and 380 in 2020. Equally important are Beijing's gray-zone tactics to test Taiwan's capabilities and gradually change the status quo, wearing down its defense capability.⁵⁶ In addition, Beijing has increasingly sanctioned politicians and think tanks in both Taiwan and the United States to deter closer ties between Taipei and Washington.⁵⁷ China also suspended official dialogues with the United States on climate change and military relations in retaliation for the Pelosi visit.

U.S. Policies toward Taiwan: Mixed Messages from Washington

Although U.S. economic policies, as noted above, have added tremendous pressure to Taiwan's economy and semiconductor sector, the United States has been enhancing its relationship with Taiwan politically. The 2018 Taiwan Travel Act and the 2020 Taiwan Allies International Protection and Enhancement Initiative Act are examples of friendly U.S. legislation to allow

⁵⁴ Founder Wen-Long Shi of Chi Mei Corporation released a statement supporting the "one-China principle" and Beijing's Anti-Secession Law in 2004. Chairperson Cher Wang of HTC Corporation claimed in a speech that the company was Chinese in 2010. Hai Pa Wang published a statement endorsing Beijing's "one-China principle" in 2016. See Lin, *Taiwan's China Dilemma*; and Liang-Sheng Lin and Jonathan Chin, "Hai Pa Wang Move Might Trigger 'One China' Domino Effect," *Taipei Times*, December 10, 2016, <https://www.taipetimes.com/News/taiwan/archives/2016/12/10/2003660927>.

⁵⁵ Syaru Shirley Lin, "Xi Jinping's Taiwan Policy and Its Impact on Cross-Strait Relations," *China Leadership Monitor*, June 1, 2019, https://www.prcleader.org/_files/ugd/10535f_ce0bf8d3dd54c60a6fe4cd1f0755d21.pdf.

⁵⁶ "China's Warplane Incursions into Taiwan Air Defence Zone Doubled in 2022," Agence France-Presse, January 2, 2023, available at <https://www.theguardian.com/world/2023/jan/02/chinas-warplane-incursions-into-taiwan-air-defence-zone-doubled-in-2022>; and Kathrin Hille and Demetri Sevastopulo, "How China's Military Is Slowly Squeezing Taiwan," *Financial Times*, July 24, 2023, <https://www.ft.com/content/f7922fdb-01bf-4ffd-9c5c-79f15468aa71>.

⁵⁷ Liz Lee and Ben Blanchard, "China Imposes Sanctions on Taiwan's U.S. Envoy, Institutions," Reuters, April 7, 2023, <https://www.reuters.com/world/asia-pacific/china-imposes-further-sanctions-taiwans-us-representative-2023-04-07>.

more high-level visits and exchanges with Taipei. Furthermore, President Joe Biden has verbally promised to help defend Taiwan on four different occasions, angering Beijing.⁵⁸ As China continues its aggressive posturing, the Biden administration has approved \$3.9 billion in arms sales, mostly missiles, artillery, and spare aircraft parts, to Taiwan. Although the DPP government has increased spending on defense to 2.4% of GDP, the United States is deeply concerned that this spending is insufficient and leaves Taiwan unprepared to defend itself.

Within Taiwan, concern is growing that the United States is treating Taiwan as an “asset,” or what Beijing calls a “card” to be played for the United States’ benefit, rather than as a trusted partner with whom the United States will collaborate on more equal terms.⁵⁹ As Washington enhances the political and security relationship, it imposes economic costs on Taiwan without clearly aligned interests. These misgivings are further enhanced by widespread Chinese-language disinformation and misinformation on social media.⁶⁰

Taiwan has FTAs with only eight countries, which contribute less than 5% to Taiwan’s aggregate trade volume.⁶¹ Under the ECFA it signed with China in 2010, Taiwan will continue to rely more on the Chinese market than on other trade partners because it has few other bilateral agreements. Taiwan’s exclusion from the RCEP and potentially the CPTPP means that U.S.-led trade initiatives such as the Indo-Pacific Economic Framework for Prosperity would be a welcome move to demonstrate U.S. leadership and commitment to the region.⁶² Progress on the U.S.-Taiwan Initiative on 21st Century Trade is also a breakthrough in deepening bilateral economic relations. This initiative, for which negotiations began in August 2022, aims to facilitate trade and investment between the two countries. It covers customs and border procedures, regulatory practices, and small businesses. The first agreement was signed on June 1, 2023, and passed in Taiwan’s legislature on July 26, 2023.

⁵⁸ Charles Hutzler, Joyu Wang, and James T. Areddy, “Biden’s Pledge to Defend Taiwan Chips Away at Longstanding U.S. Policy,” *Wall Street Journal*, September 23, 2022, <https://www.wsj.com/articles/bidens-pledge-to-defend-taiwan-chips-away-at-longstanding-u-s-policy-11663962151>.

⁵⁹ Ryan Hass, “Taiwan Is a Partner with the United States, Not an Asset,” *Taipei Times*, July 24, 2023, <https://www.taipetimes.com/News/editorials/archives/2023/07/24/2003803639>; and Zhu Songling, “Taiwan a Risky Card for U.S.-Led West to Play,” *China Daily*, July 13, 2023, <https://www.chinadaily.com.cn/a/202307/13/WS64afb0ada31035260b81643c.html>.

⁶⁰ Brian Hioe, “U.S. Bioweapons Story Reignites Concerns about Disinformation in Taiwan,” *Diplomat*, July 14, 2023, <https://thediplomat.com/2023/07/us-bioweapons-story-reignites-concerns-about-disinformation-in-taiwan>.

⁶¹ The eight countries Taiwan has signed FTAs or economic cooperation agreements with are New Zealand, Singapore, Eswatini, Paraguay, Guatemala, Panama, Belize, and the Republic of the Marshall Islands.

⁶² Roy Chun Lee, “CPTPP Membership for Taiwan: Rationales, Challenges, and Outlook,” in *China, Taiwan, the UK and the CPTPP: Global Partnership or Regional Stand-off?* ed. Chun-yi Lee and Michael Reilly (Singapore: Palgrave Macmillan, 2023), 19–45.

Implications for Domestic Politics in Taiwan

As Beijing sows fear and Washington creates uncertainty on the island, a divisive debate is occurring in Taiwan on how to address China's rise. Debate centers on whether Taiwan should accommodate Beijing, given the asymmetric military power that is increasing the inevitability of unification, or stand up for its democratic way of life by working closely with like-minded international partners and resisting China at all costs. This has important implications for the prospects of different presidential candidates and political parties in Taiwan.

Analysts have attributed Taiwan's DPP landslide victory in the 2020 presidential and legislative elections to Beijing's heavy-handed control of Hong Kong after a wave of anti-China protests in 2019. Originally designed for Taiwan, Beijing's "one country, two systems" is now unacceptable to Taiwanese voters, and with PLA incursions in the Taiwan Strait reaching unprecedented levels, the three major political parties represented in Taiwan's parliament, known as the Legislative Yuan, have toed the same basic line of maintaining peace and stability.⁶³ However, they have not yet defined clear positions on China. Furthermore, voters are eager to evaluate proposed policy solutions to Taiwan's domestic socioeconomic problems, which can be characterized as challenges of the "high-income trap" shared by other developed economies, especially Japan and South Korea. Having escaped the middle-income trap through export-oriented growth in the 1980s and 1990s, these economies now have a high standard of living and large middle class. Yet they face prolonged socioeconomic challenges of slow growth, wage stagnation, increasing inequality, demographic decline, unsustainable entitlements, inflated asset markets, and political polarization. Taiwan's ability to escape the trap requires consensus on difficult policy issues, such as energy, housing, and defense, which are all closely linked to Taiwan's cross-strait and technology policies.⁶⁴

In Taiwan's domestic politics, governance remains the focal point for voters in local elections, but the China issue is the most salient issue in national and presidential elections. After eight years of leadership under Tsai Ing-wen with majority representation in the Legislative Yuan, the DPP seeks to defend the party's performance after major losses to the KMT in the 2018 and 2022 local elections.⁶⁵ The DPP must demonstrate that its strong position against

⁶³ Chen Yu-fu and Jake Chung, "Less than 20% Back China on Taiwan Related Affairs," *Taipei Times*, March 24, 2023, <https://www.taipeitimes.com/News/taiwan/archives/2023/03/24/2003796647>.

⁶⁴ Syaru Shirley Lin, "Taiwan in the High-Income Trap and Its Implications for Cross-Strait Relations," in *Taiwan's Economic and Diplomatic Challenges and Opportunities*, ed. Mariah Thornton, Robert Ash, and Dafydd Fell (London: Routledge, 2021), 49–77.

⁶⁵ Brian Hioe, "Once Again, KMT Scores Big in Taiwan's Local Elections," *Diplomat*, November 28, 2022, <https://thediplomat.com/2022/11/once-again-kmt-scores-big-in-taiwans-local-elections>.

Chinese coercion and for alignment with the United States will not ignore—or at least not exacerbate—Taiwan’s socioeconomic problems. Conversely, the KMT has traditionally advocated for more rapprochement with China. The party believes that its leadership would pacify Beijing, thereby benefiting Taiwan’s overall interests, and accuses the DPP of promoting the U.S. agenda and fueling cross-strait tensions.⁶⁶ The impacts of the 2024 election are being carefully watched by Beijing, Washington, and the rest of the world as Taiwanese decide how to navigate the U.S.-China competition.

Given the distinct pro-U.S. position of the DPP versus the KMT’s growing skepticism of the United States, voters supporting either party will indirectly endorse either the U.S. or China position. Full support of U.S. policy toward China would mean gradually reducing exposure to China in trade, investments, and human capital. Many believe such reductions would weaken Taiwan’s economic and societal resilience. Furthermore, a recent poll showed that 38% of Taiwanese believe that supporting and complying with U.S. demands for decoupling from China and purchasing more arms may provoke Beijing, threatening Taiwan’s national security and overall investment climate.⁶⁷ Others perceive mixed intentions in U.S. actions, have sympathy toward the Chinese for being cornered by U.S. policy, and hope that Taiwan can continue to economically benefit from China.⁶⁸ These voters emphasize the U.S. withdrawal from Afghanistan and the high costs of compliance with U.S. policy for Taiwanese firms. Another poll shows that a majority of Taiwanese have worried about national security since Russia’s invasion of Ukraine, yet nearly half of respondents did not believe that the United States would come to Taiwan’s aid if conflict with China were to occur.⁶⁹ Some voters argue that the United States is penalizing or exploiting Taiwan to “make America great again” rather than rewarding Taiwan for being a trusted technological leader in chip fabrication.

⁶⁶ Gerrit van der Wees, “Taiwan’s Mid-Term Elections: Most Politics Is Local, the KMT Remains a Force to Be Reckoned with, and the DPP Needs to Regroup,” *Taiwan Insight*, November 30, 2022, <https://taiwaninsight.org/2022/11/30/taiwans-mid-term-elections-most-politics-is-local-the-kmt-remains-a-force-to-be-reckoned-with-and-the-dpp-needs-to-regroup>.

⁶⁷ “January 2023 Public Opinion Poll—English Excerpt,” Taiwan Public Opinion Foundation, January 17, 2023, <https://www.tpof.org/wp-content/uploads/2023/01/andrej-lisakov-3A4XZUopCJA-unsplash.pdf>.

⁶⁸ A recent poll showed that nearly 60% of Taiwanese agree that the United States supports Taiwan for its own national interest, while 76% of Taiwanese favor reducing tension across the Taiwan Strait and the resumption of cross-strait exchanges. See “March 2023 Public Opinion Poll—English Excerpt,” Taiwan Public Opinion Foundation, March 21, 2023, <https://www.tpof.org/wp-content/uploads/2023/03/20230321-TPOF-March-2023-Public-Opinion-Poll-%E2%80%93-English-Excerpt.pdf>.

⁶⁹ See “February 2023 Public Opinion Poll—English Excerpt,” Taiwan Public Opinion Foundation, February 21, 2023, <https://www.tpof.org/wp-content/uploads/2023/02/20230221-TPOF-February-2023-Public-Opinion-Poll-%E2%80%93-English-Excerpt.pdf>.

Taiwan's Structural Challenges in the High-Income Trap and Alternative Solutions

Taiwan's domestic challenges have intensified under the DPP's leadership, exacerbated by severe disruptions in the global economy. Structurally, Taiwan's policymakers need to make painful policy trade-offs as the population shrinks and the economy experiences a downward trajectory over the past two decades, despite performing well during the Covid-19 pandemic. The ICT sector has outperformed the rest of the economy but has also produced disenfranchisement among workers and especially young people outside the sector.⁷⁰ Although some voters focus on China as the source of political polarization and Taiwan's largest threat, others see China as the best solution for providing continued economic growth. Furthermore, some are convinced that continued DPP leadership beyond 2024 will increase the military threat from Beijing, leading to more defense spending and economic uncertainty.⁷¹ Although the DPP platform captures most voters' sense of national identity and desire to support democracy and the U.S.-led liberal order, many voters are waiting for the tangible results of the party's reforms to address Taiwan's critical socioeconomic challenges.

When the DPP won control of both the Executive and Legislative Yuans in 2020, voters had enormous expectations that the party would reverse inequality, provide affordable housing, and focus on sustainability and energy security. Achieving these goals was challenging from the start. The Covid-19 pandemic worsened unequal growth. While Taiwan's ICT exports grew because of surging global demand, the service and hospitality sectors suffered from reduced domestic consumption and foreign tourism. Although Taiwan's per capita GDP has grown 53% over the last decade, the increase was only 24% for workers not in the electronics manufacturing sector, where wages grew 65%.⁷²

The DPP has had limited success in demonstrating that it has reversed inequality or tackled the long-term issue of affordable housing, which affects young people in large cities. After a decade of financialization and low-interest environments fueling property markets, the house price-to-income ratio in Taipei has exceeded 15.2, higher than that of New York (7.1)

⁷⁰ Syaru Shirley Lin, "Taiwan's Continued Success Requires Economic Diversification of Products and Markets," Brookings Institution, March 15, 2021, <https://www.brookings.edu/articles/taiwans-continued-success-requires-economic-diversification-of-products-and-markets>.

⁷¹ A recent poll reveals that nearly half of Taiwanese who work in the private sector disapprove of Tsai's leadership. See Li Weixuan, "Disidu zhizheng kunjing: Jinban guoren buzantong Tsai Ing-wen guojia lingdao fangshi" [The Fourth Predicament: Near Half of Citizens Disagree with the Way Tsai Ing-wen Leads the Country], Storm Media, July 22, 2023, <https://www.storm.mg/article/4838952>.

⁷² Executive Yuan (Taiwan), Directorate General of Budget, Accounting and Statistics.

and London (8.7), making it one of the most expensive cities to live in.⁷³ Housing prices are rising not only in Taipei but also in cities experiencing chip-driven property booms as technology companies expand. Homes in Hsinchu, where TSMC and several other technology companies are based, have doubled in price since 2019, growing three times as fast as Taiwan's average as demand for housing by high-earning engineers and investors rises. Slim prospects of upward social mobility and rising costs of living are driving disappointment and anger, especially among young voters who must support Taiwan's aging society.

In the long term, Taiwan's most difficult challenge is sustainability and energy resilience, on which the DPP has made little progress.⁷⁴ Despite being historically focused on sustainability, the DPP government did not pass the Climate Change Response Act until January 2023, which finally committed Taiwan to net-zero carbon emissions by 2050. As of 2022, renewable energy accounted for only 8% of Taiwan's electricity supply, and the government has already revised its target of achieving 20% renewable energy by 2025 down to 15%. Approximately 97% of Taiwan's energy supply is imported, the majority being fossil fuels that contribute to over 80% of the country's total electricity generation.⁷⁵ Occasional brownouts during the pandemic have shown that the lack of a long-term sustainable energy solution threatens the future of the economy. Taiwan's primary sources of growth—the petrochemical and electronics manufacturing industries, including advanced semiconductor manufacturing—are the main sources of carbon emissions as well as large consumers of energy and water. Although TSMC has sought to achieve 100% renewable energy in its international operations, Taiwanese companies are struggling to develop renewable energy plans within Taiwan due to limited green energy supply.⁷⁶ Because Taiwan is a mountainous island with high population density in urban areas, large-scale solar and wind farms are difficult to develop domestically. Partly due to Asia's fragmented market, renewable energy is unlikely to grow quickly, and nuclear energy has again

⁷³ "Fangjia fudan nengli tongji" [Housing Affordability Statistics], Ministry of the Interior (Taiwan), <https://pip.moi.gov.tw/v3/e/scre0105.aspx>; and "Demographia International Housing Affordability, 2023 Edition," Urban Reform Institute and Frontier Centre for Public Policy, March 2023.

⁷⁴ Syaru Shirley Lin, "Population, Power Generation, Political Polarization, and Parochialism Are Also Long-Term Threats to Taiwan's Success and Survival," *China Leadership Monitor*, June 1, 2021, <https://www.prleader.org/lin-1>.

⁷⁵ Sha Hua, "Taiwan Has a Big National-Security Risk: It Imports 97% of Its Energy," *Wall Street Journal*, July 7, 2023, <https://www.wsj.com/articles/taiwan-has-a-big-national-security-risk-it-imports-97-of-its-energy-f1faced>.

⁷⁶ Cheng Ting-Fang, Laily Li, and Kim Jaewon, "From TSMC to Samsung, Asia's Chipmakers Struggle to Go Green," *Nikkei Asia*, June 30, 2023, <https://asia.nikkei.com/Business/Business-Spotlight/From-TSMC-to-Samsung-Asia-s-chipmakers-struggle-to-go-green>.

become a contentious policy issue.⁷⁷ The DPP has opposed nuclear energy since its founding and maintained a “nuclear-free homeland 2025” policy. Only one of Taiwan’s four nuclear power plants is currently in operation, and it is scheduled to shut down by 2025.

The DPP has launched several initiatives to rebalance the economy, address inequality, and enter FTAs, including the 5+2 Industrial Innovation Plan and the NSP to divert trade and investment to Southeast Asia. However, polls suggest that most Taiwanese have been consistently dissatisfied with the administration’s economic policy, with 60% of Taiwanese feeling that their well-being has not improved under the party.⁷⁸ The main opposition parties are highly critical of the DPP’s compliance with the United States’ decoupling strategy and advocate for rapprochement with China. The KMT also claims that it will be more successful at joining the CPTPP and signing FTAs. The rising Taiwan People’s Party has been even more provocative, with its 2024 presidential candidate, former Taipei mayor Ko Wen-je, proposing to revive the controversial Cross-Strait Service Trade Agreement under the ECFA in order to revitalize Taiwan’s economy through further integration with China. For an export-dependent island, discussion of how to effectively govern always involves the question of whether Taiwan should rely more on China or the United States, both economically and politically.

Managing Rising Geopolitical Tension

The 2024 election will focus on Taiwan’s economic and societal security in the shadow of deteriorating U.S.-China relations. Although the DPP has been viewed as a pro-independence party hostile to Beijing, President Tsai has demonstrated restraint in managing cross-strait relations by not pandering to her base, which may otherwise support independence.⁷⁹ Instead, the Tsai administration’s policies have focused on reducing economic dependence on China.⁸⁰ The DPP government has made progress since 2016 in deepening the relationship with the United States by attracting high-profile visits to Taipei

⁷⁷ Joy Tseng and Teng Pei-ju, “Taiwan’s Energy Transition Efforts ‘Far Behind Schedule’: AmCham,” Focus Taiwan, June 7, 2023, <https://focustaiwan.tw/business/202306070015>.

⁷⁸ “January 2023 Public Opinion Poll—English Excerpt.”

⁷⁹ According to a poll result in August 2022, over 80% of DPP supporters prefer “Taiwan independence” over “cross-strait unification.” See “Zhonggong junyan chongji tongdu rentong? You Ying-lung bao zuixin mindiao: ‘Guoren pan yongyuan weichi xianzhuang’ shi huangyan” [Is Chinese Military Exercise Affecting Taiwanese Public Opinion on Unification-Independence Stance? The Latest Survey Shows That It Is a Lie to State “Taiwanese Want to Maintain Status Quo Indefinitely”], Storm Media, August 18, 2022, <https://www.storm.mg/article/4477924>.

⁸⁰ Syaru Shirley Lin, “How Taiwan’s High-Income Trap Shapes Its Options in the U.S.-China Competition,” in *Strategic Asia 2020: U.S.-China Competition for Global Influence*, ed. Ashley J. Tellis, Alison Szalwinski, and Michael Wills (Seattle: NBR, 2020), 133–60.

by U.S. politicians and several congressional delegations. The NSP and the launch of the U.S.-Taiwan Initiative on 21st Century Trade show promise in reducing investments in China and increasing investments in the United States, Europe, and Southeast Asia.

The more urgent issue regarding deterring Beijing is conscription, which has been extended from four to twelve months for Taiwanese men. Although all three parties appear to endorse the extension, doubts remain over whether the training provided is sufficient to strengthen the combat readiness of the military. As Taiwan's birth rate declines and many families have only one child, lengthening the compulsory military service period has caused anxiety. The policy also includes a monthly salary increase (from \$207 to \$648), which requires growing the defense budget. Despite recent increases, the defense budget has reached only 2.6% of Taiwan's GDP. Countries facing similar external security threats, such as Israel, have defense budgets of approximately 5% of GDP. Drawing lessons from Ukraine and in consultation with the U.S. military, the Tsai administration recently shifted arms purchases from traditional warfare assets to equipment suitable for asymmetrical warfare.

The KMT argues that such defense spending and conscription policies would be unnecessary if cross-strait tensions were eased.⁸¹ The KMT has consistently used the U.S. withdrawal from Afghanistan and uncertainty surrounding continued U.S. support for Ukraine to warn Taiwanese voters of the United States' unreliability.⁸² Both the KMT and Taiwan People's Party fuel skepticism of the United States, which they view as destabilizing a difficult situation and imposing costs on the Taiwanese through increased arms sales and longer conscription.

Competing Policy Stances Leading Up to 2024: Reflection of a Divided Taiwanese Society

Public satisfaction with the DPP government was considerably undermined by its management of the Covid-19 pandemic. Although early pandemic policies were successful, the slow purchase of vaccines led to a delayed rollout and public discontent.⁸³ As voters experience "DPP fatigue" after eight years of heightened tension in the Taiwan Strait and see little sign

⁸¹ Yimou Lee, "Taiwan Opposition Presidential Candidate Vows to Shorten Military Service," Reuters, July 4, 2023, <https://www.reuters.com/world/asia-pacific/taiwan-opposition-presidential-candidate-vows-shorten-military-service-2023-07-04>.

⁸² Ogasawara Yoshiyuki, "Skepticism about the U.S. Spreading in Taiwan," Discuss Japan—Japan Foreign Policy Forum, March 14, 2023, <https://www.japanpolicyforum.jp/diplomacy/pt2023031420052012992.html>.

⁸³ Anneke Schmider, Siwei Huang, and Caroline Fried, "Resilience in the Asia Pacific: Vaccines and the 'Triple Challenge,'" Center for Asia-Pacific Resilience and Innovation (CAPRI), October 26, 2021, <https://caprifoundation.org/resilience-in-the-asia-pacific-vaccines-and-the-triple-challenge>.

that its reform policies have been effective, the DPP may have fewer seats in the legislature. Polls show voter opposition to the DPP controlling both the executive and legislative branches of government.⁸⁴ If the DPP does not control both the presidency and the legislature, then it will not be able to enact long-needed structural reforms.

The backlash against the DPP's President Tsai, widely regarded as a moderate internationalist, is evident in the campaigns of the three leading presidential candidates, who are former mayors with little experience in foreign or cross-strait policy. Their campaigns largely focus on addressing domestic structural challenges of inequality, living and housing costs, and energy security rather than foreign policy. The DPP presidential candidate, current vice president and former mayor of Tainan William Lai, seeks to defend the party's policy agenda by continuing President Tsai's strategy and improving Taiwan's economic resilience. The opposition parties have vowed to prioritize areas where DPP policies have not met expectations in the last eight years, such as providing affordable housing and achieving security and sustainability by other means. Whereas Lai vehemently opposes restarting any of Taiwan's nuclear power plants, the KMT advocates restarting them to guarantee a steady supply of electricity. Its candidate, Hou Yu-ih, former mayor of New Taipei City, has focused on "stability, safety, and decarbonization."⁸⁵ The Taiwan People's Party's Ko Wen-je has also criticized the DPP's anti-nuclear policy and advocated the recommissioning of Taiwan's nuclear power plants to meet energy demands during the transition to alternative energy sources.⁸⁶

On cross-strait policy, Lai promotes upholding Taiwanese identity and autonomy, consistent with the DPP's party platform. However, Beijing has clearly indicated that Lai becoming president would be unacceptable not only because of the DPP's historical commitment to eventual independence but also because of his 2015 statement that he is a "pragmatic Taiwan independence worker" and his opinion that Taiwan's presidents should visit the White House.⁸⁷ People in Washington also have concerns that Lai may

⁸⁴ "May 2023 Public Opinion Poll—English Excerpt," Taiwan Public Opinion Foundation, May 16, 2023, <https://www.tpof.org/wp-content/uploads/2023/05/20230516-TPOF-May-2023-Public-Opinion-Poll-%E2%80%93-English-Excerpt.pdf>.

⁸⁵ Su Szu-yun and Evelyn Kao, "Hou Supports Restarting No. 1 Nuclear Plant If No Safety Concerns," Focus Taiwan, July 3, 2023, <https://focustaiwan.tw/politics/202307030017>.

⁸⁶ Wu Hai-ruei, "Ko Charges into Energy Debate, but Lacks Vision," *Taipei Times*, June 12, 2023, <https://www.taipeitimes.com/News/editorials/archives/2023/06/12/2003801378>.

⁸⁷ Thompson Chau, "Taiwan's Ruling DPP Names William Lai as Presidential Candidate," *Nikkei Asia*, April 12, 2023, <https://asia.nikkei.com/Politics/Taiwan-s-ruling-DPP-names-William-Lai-as-presidential-candidate>; and Cindy Wang, "Taiwan Candidate Says Its Presidents Should Visit White House," Bloomberg, July 11, 2023, <https://www.bloomberg.com/news/articles/2023-07-11/taiwan-candidate-says-its-presidents-should-visit-white-house>.

change the status quo. Lai has sought to reassure the United States of his commitment to Tsai's moderate line of not seeking Taiwan's independence and upholding the constitution.⁸⁸ By contrast, Hou hopes to return to a Taipei-defined 1992 consensus—by which Taipei and Beijing agree that there is one “China” but respect that each side interprets “China” differently—as the basis for re-engagement with Beijing. The KMT has portrayed its campaign against the DPP as a choice between “peace and war.” Meanwhile, the Taiwan People's Party brands itself as a pragmatic force in cross-strait affairs and would like to encourage more dialogue. Ko has argued that Taiwan should be more strategic and independent from the United States in its military strategy and defense spending.⁸⁹ Overall, attacks on the DPP are founded on Beijing's refusal to enter official exchanges with the party. Both opposition parties advocate more economic and people-to-people exchanges with China and are confident that they would outperform the DPP in this realm.

The Way Forward

Future of the Taiwan-U.S. Partnership and U.S. Policy Options

The resilience of Taiwan's democracy is under more pressure than ever as the country navigates an uncertain world. As reflected in Europe, South America, and elsewhere, an incapable government can easily turn a progressive society into a populist one that distances itself from the liberal democratic camp. If Taiwan's future leadership turns to Beijing for solutions and peace across the Taiwan Strait, the U.S.-Taiwan partnership could break down, dealing a deep blow to the United States in its strategic competition with China.

To compete with an alternative model of governance, the U.S.-led coalition of partners and allies, especially technological leaders and those under pressure by Russia and China, must work together. Southeast Asia, South America, and even Europe have seen populists, on both the right and left, cast doubt on the liberal world order after observing political chaos and polarization in the United States since 2016. Taiwan's voters continued to support progressive and democratic values in re-electing President Tsai in 2020, despite heavy pressure from China, but the 2024 election shows declining support for the ruling party.

⁸⁸ Sean Scanlan, “Vice President Lai Says He Will Not Declare Taiwan Independence,” *Taiwan News*, May 17, 2023, <https://www.taiwannews.com.tw/en/news/4894155>; and Lai Ching-Te, “My Plan to Preserve Peace in the Taiwan Strait,” *Wall Street Journal*, July 7, 2023, <https://www.wsj.com/articles/my-plan-to-preserve-peace-between-china-and-taiwan-candidate-election-race-war-7046ee00>.

⁸⁹ Teng Pei-ju, “Taiwan Must ‘Prepare for War’ but Seek Dialogue with China: TPP Chairman,” *Focus Taiwan*, April 21, 2023, <https://focustaiwan.tw/cross-strait/202304210018>.

With a resilient and innovative Taiwan, Washington will be better prepared to preserve its technological advantage over Beijing, especially in cutting-edge fields like quantum computing and supercomputing. This goal is shared by U.S. partners and allies in the Asia-Pacific that are focused on the crucial semiconductor industry to power these innovations. On the policy level, however, the effectiveness of the current U.S. approach to strengthen domestic innovation and contain Beijing's development of advanced technologies is unclear. As analyzed in this chapter, the forced reshoring of semiconductor production will be more time- and cost-intensive than expected, with no clear projected returns on investments. The long-term success of the latest set of export controls and investment restrictions by the Biden administration—though much more sophisticated than the trade war launched by the Trump administration—depends on whether other partners holding key technologies in the global value chain, such as South Korea, Japan, and the Netherlands, are willing to continue coordinating fully with the United States on its technology and China policies.

As the United States attempts to revive its semiconductor industry to create jobs and ensure technological leadership, it must help Taiwan and other Asia-Pacific partners find alternatives to China to build economic resilience. Consultations with the Taiwanese business community, government, and civil society are needed as U.S. policymakers consider new trade rules to ensure buy-in and trust in the United States as a credible partner that understands Taiwan's interests. The United States cannot expect seamless compliance with changing rules if foreign companies view them as too disruptive, difficult to implement, or unaligned with circumstances on the ground. Biden's proposed Chip 4 alliance could be a step in the right direction to coordinate regional policy if the group can be consolidated on a platform for productive dialogue.⁹⁰ Unilateral export controls contribute to skepticism toward the United States among Taiwan's voters, creating the dilemma of a dichotomous choice between a democratic United States and an authoritarian China. The Taishang have shown for decades that operating in both is possible, and U.S. policies should consider the nuanced interests of Taiwanese businesses in China. Taiwanese partners need practical and material benefits for cooperating with the United States; they will not comply with a strategy to enhance the United States' competitiveness if it actually diminishes the economic resilience of the United States' partners.

Furthermore, the United States and Europe, as well as partners such as Japan and Australia, can support Taiwan's efforts at deeper economic

⁹⁰ Erik M. Jacobs, "Challenges and Opportunities for the 'Chip 4' Group," Global Taiwan Institute, November 2, 2022, <https://globaltaiwan.org/2022/11/challenges-and-opportunities-for-the-chip-4-group>.

linkages and policy dialogue. Alternatives to China should include Taiwan's further integration into regional economic and trade architecture so that the country can more easily diversify away from Chinese markets. This regional integration is key to building economic resilience, especially outside Taiwan's high-technology sector. Bilateral trade agreements with the United States are a good start but should extend to U.S. allies. Broader economic engagement can reduce the influence of skeptics who warn that the United States is leveraging Taiwan only to benefit itself. A sound economy is a prerequisite to building Taiwan's defense capability and countering China's coercion. Otherwise, the Taiwanese will be vulnerable to pressure.

Finally, Taiwan cannot continue to be excluded from the international community. As long as China systematically excludes Taiwan from international organizations and even limits its ability to sign bilateral trade agreements, it will perceive the need to remain embedded in China's political economy to stay competitive. The Covid-19 pandemic, for example, has highlighted how Taiwan can navigate the most difficult economic challenges to achieve resilience while finding new growth opportunities without international recognition. Taiwan could continue manufacturing because of its early and successful management of the public health crisis. However, due to the absence of a regional framework for multilateral collaboration in the realm of public health and the lack of access to the World Health Organization, Taiwan cannot coordinate with international partners on information sharing or policy responses in health emergencies. Taiwan remains vulnerable to the next pandemic, which may emerge from Asia again. The United States and its allies must view Taiwan not as a U.S.-China issue but as a global issue for critical interests, including supply chain security, military security, and pandemic preparedness, all of which could center on Taiwan. However, no strategic interest is more important than what Taiwan represents: an innovative society whose citizens stand for freedom and democracy.

Prospects and Solutions for Taiwan Walking the Tightrope

Taiwan was one of the first countries to connect with China economically because of its geographic and cultural proximity, and Taiwan's economy has become highly integrated with China's. Decoupling is much more difficult for Taiwan than for other countries because cross-strait interdependence extends from trade and investment to human capital, technology, and societal and interpersonal relations. As the United States and Europe began shifting from globalization to top-down industrial policy to promote economic security, export controls and sanctions had an adverse impact on Taiwanese firms. While they are increasing their investments back in Taiwan, Taiwanese firms

are not leaving China entirely. Moreover, bilateral trade remains strong because of supply chains built up over decades without the emergence of meaningful alternatives. Much of Taiwan's exports to China are components tied to supply chains organized by multinational corporations that still view China as an important market.

Taiwan must determine how to diversify its sources of economic growth, which may involve aligning itself with more cost-intensive and distant manufacturing centers. Bilateral trade talks between Taiwan and the United States show promise for accelerating talent circulation, especially through Silicon Valley. However, successfully upgrading Taiwan's economy to address inequality, sustainability, health, and innovation requires thoughtful solutions developed by an active civil society working closely with others in the region. More investments are needed in future-oriented sectors, including AI and biotechnology. Creating new engines of growth will require an overhaul of education, with a focus on foundational research, interdisciplinary training, and application as well as theory. Taiwan's population decline and rigid education system also mean that cultivating domestic talent is insufficient. Attracting international talent in all fields must be prioritized to upgrade the economy, which will require changes in immigration and education policies.⁹¹

Taiwan's democracy is increasingly polarized because the country's China dilemma is at the heart of domestic political competition. The challenges associated with Taiwan's high-income trap that divide society, with some people seeing China as a solution and others viewing it as a problem, are similar to many of Taiwan's neighbors. Effective solutions within the Asia-Pacific are needed to address the issues raised by different groups and enhance economic resilience while managing the China threat. Taiwan is not alone in facing this threat. As former Australian prime minister Malcolm Turnbull noted at the 2023 annual forum of Taiwan's first international think tank, "problem-solving must happen across borders and sectors.... As authoritarian, populist, and protectionist regimes gain traction worldwide, democratic leaders in Asia and the Pacific should work together to build a collaborative ecosystem for solving the world's toughest challenges." In essence, Taipei needs an ecosystem focused on policy research and civic education to help political leaders become more strategic and focused on the long term. Think tanks, universities, and platforms for competing ideas within Taiwan and across the region are needed to bridge the gap between policymakers and

⁹¹ Lin, "Population, Power Generation, Political Polarization, and Parochialism."

experts and develop policy alternatives.⁹² Furthermore, consultation with different stakeholders on policy initiatives must improve to create a less polarized Taiwan. Taiwan finds itself at the center of not only Beijing's and Washington's attention but the world's, and it must be equipped to create innovative policy solutions for itself and others.

Conclusions

Since my chapter "How Taiwan's High-Income Trap Shapes Its Options in the U.S.-China Competition" was published in *Strategic Asia 2020*, Taiwan's China dilemma has intensified because of several external factors. China's tightened control over Hong Kong has completely removed "one country, two systems" as an acceptable option for Taiwan as part of a unified China. Another factor is the fear that the United States will abandon Taiwan as it did in 1979, when diplomatic relations and the defense treaty with Taiwan were terminated, although the Taiwan Relations Act moderated the impact. While being touted as a leading emerging democracy with a high-technology foundation, Taiwan is a model for developing countries that the West admires but cannot fully support because of China's opposition. The perceived hypocrisy of the international order has produced skeptics in Taiwan who believe that the United States and Europe are weak and self-interested and argue that Taiwan should accommodate China because it has no choice. Others simply believe that China is a better choice than relying on a declining and increasingly self-serving Western alliance. The United States' decoupling policy toward China, especially semiconductor policies that have damaged Taiwan's economic future, only bolsters claims that Taiwan is a pawn rather than a partner in a geopolitical rivalry between superpowers.

The world and Taiwan have much at stake. Taiwan's 2024 presidential and legislative elections have intensified ongoing debates over the issues examined in this chapter. The lack of cross-strait and international experience among the leading candidates is indicative of the parochial nature of politics from Latin America to Southeast Asia. The major parties' platforms demonstrate societal polarization, offering different views on the implications of decoupling and great-power rivalry for Taiwan. Although younger voters are focused on democracy and freedom, they are less wedded

⁹² This was a major idea discussed during the annual forum of the Taipei-based Center for Asia-Pacific Resilience and Innovation at which Turnbull spoke. Sunjoy Joshi, Alicia Garcia Herrero, and Harry Harding also spoke about the role of think tanks in today's uncertain world, especially in the Asia-Pacific. See "Center for Asia-Pacific Resilience and Innovation (CAPRI) Convenes International Advisory Council Members Led by Malcolm Turnbull in Taipei Annual Forum," CAPRI, Press Release, May 29, 2023, <https://caprifoundation.org/capri2023annualforum-pressrelease>.

to any political party than in the past. As a result, the long-term prospect for Taiwan to build a resilient democracy is more uncertain than ever.

Taiwan's challenge of prioritizing and fulfilling competing demands from society is shared by many other countries, but especially the most competitive countries in Asia. The Taiwanese have navigated challenges by relying on innovation, which emerges from international mindsets, close public-private collaboration, and free-flowing talent. More entrepreneurial organizations, including think tanks, can provide platforms for civic engagement in policy and innovative thinking on navigating an increasingly fraught geopolitical landscape.

The United States must lead efforts to include Taiwan in the global political economy and bring it out from the shadow of China, whether in public health, advanced education, or economic partnerships. The stakes are even higher for Xi Jinping, whose tight grip on power must be bolstered by a strong economy and international presence, both of which he believes require reining in Taiwan. China has become economically indispensable to the world, and whether such power extends to become an appealing model elsewhere depends on winning over Taiwan through economic or even military coercion, as well as through rhetoric against the U.S.-led liberal order. Taiwan's ability to walk the tightrope will be a testament to whether the new order in the global economy enhances democratic resilience around the world or simply serves the interests of those who set the ever-changing rules.