

China Decoupling Beyond the United States: Comparing Germany, Japan, and India

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Contents

Introduction	1
Germany's Decoupling Trajectory	7
Japan's Decoupling Trajectory	20
India's Decoupling Trajectory	29
Conclusion	37
About the Authors	39
Notes	41
Carnegie Endowment for International Peace	59

Introduction

A number of U.S.-aligned countries are “decoupling” or “de-risking” their economic and technological ties with China in some form. Yet this international trend is often seen primarily through the lens of U.S. policy. Unilateral U.S. tools, like export controls, have enabled American officials to play an outsized role in isolating China from global supply chains—and in inspiring, or forcing, other countries to follow suit. Although U.S. leaders frequently debate these moves with allied counterparts, many in Washington still tend to presume that friendly nations are fundamentally like-minded on overall decoupling strategy.

In reality, the loose coalition of countries involved in decoupling from China have varied approaches and perspectives. No other country fully shares all U.S. goals. Understanding these differences—and the historical, economic, and political factors that drive them—will be key to effective policymaking in Washington and elsewhere.

This paper compares how three key countries—Germany, Japan, and India—have managed their technological and economic ties with China in the last twenty years. These countries are the world’s biggest economies after the United States and China. They all play leading roles in various technology sectors. And each country has a distinct set of economic and geopolitical interests at stake in their relationships with China. Collectively, the three countries serve as valuable case studies to explore divergence and convergence within the U.S.-aligned world on how to handle decoupling.

The case studies in this paper examine the decoupling trajectories of Germany, Japan, and India over time. When, how, and why did each government evolve in its approach to economic and technological ties with China? What specific industries, policies, and moments were most important or illustrative? How have trend lines in the three countries compared with each other—and with the United States? To what degree has U.S. policy exerted an influence on the other countries or vice versa? Finally, what future conditions might cause further shifts in direction?

Overall Findings

- **Germany, Japan, and India have each increased decoupling policies over the past five years.** Generally, these countries deepened interdependence with China in the early 2000s and began to scale back engagement in the late 2010s. But instead of a uniform movement toward decoupling, each nation has experienced a complex interplay of fragmentation in some areas and engagement in others. For example, the German government has heightened scrutiny of inbound Chinese investment even as German automakers are increasing collaboration with Chinese electric vehicle companies. Likewise, India has aggressively banned Chinese apps from the Indian market but is importing increasing amounts of Chinese technology goods. Despite individualities, all three nations are currently moving in a more restrictive direction overall.
- **Each nation’s decoupling trajectory has been shaped more by its bilateral relationship with China than by U.S. influence.** Although U.S. policymakers have at times pressured each nation to align with U.S. policy toward China, with varying degrees of success, these efforts have rarely been the decisive factor in any country’s policy stance. For example, in 2019 Germany rebuffed U.S. exhortations to ban Huawei, but it began to reconsider its Huawei policy in 2023 after escalating concerns about potential Chinese sabotage. Similarly, Japan’s intense security concerns predate those of the United States and are driven by a historically adversarial political relationship with China and declining economic compatibility.
- **Unlike the United States, neither Germany, Japan, nor India has taken the initiative to thwart China’s technological advancement.** The United States has actively sought to limit China’s progress in key sectors like advanced semiconductors, and Japan has sometimes implemented similar policies in response to U.S. leadership and pressure. But Japan’s own policy initiative is limited by its desire to avoid retaliation from China. Germany also views such antagonism as unnecessarily

escalatory. India's perspective is unclear, but New Delhi does not have control over any key supply junctures with which it might generate leverage over China. Overall, each of the three countries is more concerned with reducing its own vulnerability to Chinese influence or exploitation rather than actively hindering China's capability development.

- **Preventing a Chinese takeover of domestic industry is a key objective for each nation.** Every nation studied, including the United States, has increased its inbound investment regulation in the past five years. Such decisions were often taken in response to an influx of Chinese investment and with the purpose of preventing Chinese ownership of key technology companies. Each nation has also sought to bolster the strength of its domestic industry through subsidies, tax incentives, or other favorable policies.
- **India is the only nation studied that approaches U.S. policy in overall restrictiveness.** For every Japanese or German restriction against China, there is almost always a corresponding U.S. policy that is more restrictive. Although India has not enacted U.S.-style sanctions nor export controls targeting China, New Delhi has significantly restricted the market access of Chinese hardware and software products like Huawei phones and network technology, TikTok, and UC Browser—even more than the United States has. In fact, India's decision to ban TikTok in 2020 was later cited by President Donald Trump as a rationale for a U.S. ban.¹
- **It is unlikely that Germany, Japan, or India will match or surpass U.S. restrictiveness toward China in the near future.** Although the decoupling trajectories of all nations studied have accelerated over the past five years, U.S. policy toward China remains the most restrictive for reasons that seem unlikely to change. Germany does not share many of the United States' security assessments about the threats emanating from China. Japan's strategic intentions are more complex and unclear, but Tokyo has long held back from many restrictions out of fear of retaliation. And India has neither the capacity nor the desire to thwart China's development of and access to advanced technologies. Consequently, the United States will remain the primary driver of restrictive policy toward China for the foreseeable future. See box 1 for an overview of U.S. decoupling policy.

Box 1. Overview of U.S. Decoupling Policy

The United States takes a more restrictive approach than any nation studied in this paper.

Washington views the ascendancy of China with significant concern and, over the past ten years, has become increasingly worried that technological integration with China creates substantial vulnerabilities for U.S. national security and global economic leadership.

More than any nation studied in this paper, the United States enacts policies that implicitly target China's technological development. The clearest such policies to date are the semiconductor export controls enacted in October 2022, which limit China's ability to access and develop advanced semiconductor technologies. Though nominally designed to prevent the technological outfitting of the Chinese military, these controls broadly limit China's access to semiconductors for a variety of commercial and technological purposes. The United States has managed to encourage other countries, including Japan and the Netherlands, to align with portions of the U.S. controls, but no other country has taken such significant steps on its own initiative to thwart China's access to advanced technologies.

The United States also often assumes a leadership role in regulating China's technological presence in domestic markets. For instance, the United States was the first country to restrict Huawei from outfitting domestic 5G networks and has enacted increasingly strict investment screening mechanisms to regulate both Chinese investment in U.S. companies and U.S. investment in Chinese technology firms. Some nations have followed suit, restricting Huawei telecoms equipment and limiting capital inflows from Chinese investors, but few have approached the United States' level of restrictiveness.

While many nations share some of Washington's concern that China's technological ascendancy may present a national security threat, Washington's willingness to directly confront China and take measures that seek to limit China's ability to access and develop advanced technologies are unique. Other nations might attempt to curtail their own reliance on China, but the United States is largely alone in its increasingly broad, proactive efforts to thwart China's access to cutting-edge technologies.

For a more comprehensive analysis on the United States, see Jon Bateman, "U.S.-China Technological Decoupling: A Strategy and Policy Framework," Carnegie Endowment for International Peace, April 25, 2022, <https://carnegieendowment.org/research/2022/04/us-china-technological-decoupling-a-strategy-and-policy-framework?lang=en>.

Case Study Summaries

Germany

Of all the nations studied in this paper, Germany is the least inclined to decouple from China. Unlike Japan and India, Germany does not have direct physical security considerations that animate its relationship with China. Consequently, the Sino-German relationship is shaped primarily by economic and trade-related factors. Germany deepened economic engagement with China during the 2000s under then chancellor Angela Merkel's policy of "change through trade" but has grown increasingly skeptical about its ties to China since 2016. That year, the purchase of a leading German robotics manufacturer, KUKA, by Chinese conglomerate Midea Group caused Germany to view China increasingly as a competitor rather than a partner. Since 2016, German policymakers have grown concerned about the ability of German industries to compete with China in the long run, prompting some restrictions in investment policies and increasing skepticism about engagement.

Germany is also motivated to reduce the risk of potential Chinese sabotage. Russia's invasion of Ukraine in 2022 and subsequent weaponization of German dependence on Russian energy created concern that China might exploit similar technology-related dependencies during a crisis. Since then, Germany has reevaluated its interdependence with China by both restricting its regulation of investment in infrastructure and reconsidering the decision to allow Huawei to outfit German 5G networks. Despite these movements, German policy remains significantly less restrictive than U.S. policy, and Germany does not partner with U.S. initiatives to limit China's access to sensitive technologies like advanced semiconductor manufacturing equipment.

In the future, Germany will be an occasional ally rather than a staunch supporter of U.S. decoupling policies. Although Germany and the United States collaborated on some narrowly focused restrictions like revising investment policies, Germany infrequently aligns with U.S. restrictions. While Germany will remain open to collaborating with the United States on specific and explicit national security threats, Berlin is less persuaded by more generic U.S. arguments about the risks of engagement with China.

Japan

Japan's implementation of decoupling policies has accelerated significantly since 2018. In that time, Japan has banned Huawei from domestic networks, restricted its export of semiconductor manufacturing equipment to China, and instituted several policies designed to strengthen domestic resilience to outside coercion. This acceleration was sparked in part by an increasingly aggressive decoupling agenda set by the United States, which co-opted Japan into some policies and provided cover for Japan to address economic security concerns without unilaterally provoking China.

Unlike Germany, Japan has a lengthy history of economic and political confrontation with China that shapes its decoupling strategy. In 2010, China weaponized Japan's reliance on Chinese rare earth imports hoping to win territorial concessions in the Senkaku/Diaoyu Islands dispute. Since then, Japan has moved to diversify supply chains for critical materials, making domestic supply resilience a core component of its economic policy objectives. These concerns give Japan's decoupling trajectory a sense of immediacy that is not present in German policy discourses. Japan's China policy is more restrictive than Germany's and is more cooperative with U.S. restrictions than either Germany's or India's.

Japan can curtail China's access to advanced technologies, but it is unclear whether Japan shares the implicit U.S. goal of broadly limiting China's technological advancement. Japan has aligned with portions of the U.S. semiconductor export controls, albeit only after extensive negotiations. While Tokyo has significant concerns about Chinese investment in Japanese technology firms, Japan's physical proximity to China—and the resulting desire to maintain economic and military stability—will continue to restrain Tokyo's policy entrepreneurship.

India

India is distinctive in viewing global decoupling from China as an opportunity—though New Delhi's goals for this process are often in tension. India seeks to simultaneously reduce its dependence on China and to capture manufacturing market share as other nations look to diversify supply chains. But as India seeks to develop domestic manufacturing capacity, it finds itself increasingly dependent on imports of Chinese supply chain inputs. As a result, India's domestic manufacturing initiatives have resulted in only marginal improvements in capacity and a ballooning trade deficit with China. Although India has taken important first steps in building a domestic manufacturing base, India probably cannot replace China's role in manufacturing supply chains in the near future.

India's decoupling policies are also motivated by its border dispute with China. This physical security concern contributes to a hostile policy environment and greater skepticism about engagement. Indian policymakers are among the most hawkish in their assessments of China, and India has sought to curtail China's presence in consumer markets, eliminating Huawei from 5G networks and banning a total of 321 Chinese apps since 2020.

India will likely play a peripheral role in the future of U.S. decoupling policy. India lacks the technological heft to significantly augment U.S. restrictions like export controls, and India does not control any key supply chain junctures for advanced technologies like semiconductors. Additionally, India is much more dependent on China for technologies than is China on India. Moreover, despite heavy investment, India is unlikely to serve as an alternative supply chain hub to China. Although some U.S. manufacturers are moving portions of their supply chains to India, these movements are incremental so far and focused on several nations—including Mexico, Thailand, and Vietnam—rather than exclusively on India.

Terminology

There is no single term that clearly and accurately describes what this paper calls “decoupling.” In fact, decoupling is not the term of choice for all nations studied in this paper. For example, Germany prefers to characterize its actions as “de-risking.” This term connotes a more diplomatic approach and emphasizes the preferability of diversification and reliance on partners over autarky. Similarly, Japan labels its policies as enhancing “economic security,” shrouding the geopolitical nature of many of its policies in a narrative of domestic security concerns. India often throws around buzzwords like “resilience,” “diversification,” and “self-sufficiency” to describe its actions.

Ultimately, these terms all reference a nation taking steps to reduce its technological and economic ties to China. In this paper, that phenomenon is referred to as decoupling. While decoupling is an imperfect term, it remains the most recognizable and explicit means of describing the broad set of phenomena.

This paper also uses the phrase “decoupling trajectory” to describe the evolution of a nation’s approach to economic and technological engagement with China. A decoupling trajectory consists of a set of policy priorities, economic trends, and political attitudes that shape the overall direction of a state’s past, present, and future technology relationship with China. The aim of the term “decoupling trajectory” is to provide a sense of change through time and to synthesize policies into a cohesive narrative.

Germany’s Decoupling Trajectory

As the world’s third-largest economy, Germany will play a key role in shaping the future of global technology relations, including with China.

Germany’s foreign and economic policy is distinctive in that it operates at both the domestic and European Union levels. At the domestic level, Germany controls its foreign policy and state-to-state relations, but Berlin has ceded a significant amount of power to the EU, which dictates trade policy and helps set standards for European market access. At the same time, many of the European Union’s (EU’s) standards are enforced at the state level, giving Germany the opportunity to determine the extent to which it follows EU policy. For example, Germany continues to allow the use of Huawei technology in 5G networks despite EU regulations that discourage the purchase of Huawei equipment.² This reality complicates the analysis of Germany’s relationship with China.

Broadly speaking, Germany has exercised its EU voice to argue for moderation and limited restrictions against China. While Germany’s efforts are not always successful, Berlin has significantly shaped the trajectory of the EU’s relationship with China. Specific examples, and the effects of this two-level policy dynamic, are discussed throughout the case study.

Case Study Takeaways

- **Germany's approach to economic and technological integration with China has undergone two distinct shifts since 2005 while gradually moving in a more restrictive direction.**³ Germany deepened ties with China in the 2000s, but it gradually grew skeptical about technological engagement with China and started to enact some narrowly targeted restrictions in 2016. German policy toward China began a second shift toward increased restrictions following the election of a new government in 2021. The current chancellor, Olaf Scholz, seeks to balance Germany's traditional pro-engagement stance with Green party cabinet members' calls for a diminished relationship with China.
- **Germany's decoupling trajectory has generally been driven by increasing hawkishness in German politics, diminishing complementarity between the Chinese and German economies, and growing concerns about Chinese sabotage during a crisis.** While engagement with China was largely a consensus position within the German government in the early 2000s, calls for restriction from within the Bundestag have increased, creating a more fractious China policy that is moving slowly toward increased restriction. Similarly, increased economic competition with China has fostered doubts about the long-term success of German industry, leading some policymakers to sour on the idea of engagement. Last, Russia's full invasion of Ukraine in 2022 and its subsequent weaponization of German dependence on Russian energy served as a wake-up call for German officials, prompting concerns that China might exploit similar technology-related dependencies and leading Germany to reevaluate its reliance on potential adversaries.
- **U.S. influence has not been a primary driver of Germany's decoupling trajectory.** U.S. decoupling policies have not inspired similar policies in Germany, and U.S. diplomatic pressure has rarely resulted in Germany enacting restrictions. Germany is also generally unpersuaded by U.S. claims of nonspecific security threats emanating from Chinese companies. However, more detailed U.S. intelligence sharing has occasionally fostered cooperation between the United States and Germany in investment regulation.
- **Germany is primarily concerned with insulating itself from the risks of dependency on China rather than limiting China's growth.** Germany does not seek to thwart China's technological development, which is the implicit goal of some U.S. policies.⁴ Instead, Germany aims to contain Chinese threats by enacting limited restrictions that target specific issue areas and do not jeopardize broad economic and technological exchange.

- **Although Germany, Japan, and India are each more concerned with domestic resilience than with thwarting China's development, German policies remain less restrictive and less sensitive to U.S. influence than Japanese and Indian stances.** Each nation has sought to protect domestic companies by regulating inbound investment, but Japan and India have moved considerably further toward decoupling than Germany has by restricting the activities of Chinese companies like Huawei and ByteDance, and, in the case of Japan, cooperating with the United States on export controls.
- **In the 2000s, the United States, Japan, and India incentivized industrial development through subsidies and tax credits, but Germany did not pursue similar policies.**⁵ China's economic rise led to the loss of manufacturing jobs in the United States, Japan, and India, but Germany was largely spared this phenomenon. Beginning in the 2010s, governments in the United States, Japan, and India prioritized state intervention in industry to recoup losses and support so-called national champions. German policymakers have taken the opposite approach, relying on market effects rather than subsidies and tax incentives to support the competitiveness of German industry and minimize fiscal debt. However, in recent years, German officials have signaled interest in creating subsidies for some high-tech manufacturing areas like semiconductor chip production. Though subsidies have gained attention in public discourse, Germany's tight fiscal restrictions make the future of such incentives uncertain.⁶
- **Germany does not believe it must choose a side in U.S.-China technology competition.** While the United States thinks of the rise of China in almost existential terms, Germany is broadly less concerned. German skepticism toward China has increased, and it now views China through the lens of economic competition rather than pure economic partnership, but its concerns fall well short of the comparative dread espoused by many U.S. policymakers. Germany is willing to continue to work with both the United States and China to support German economic growth and industry.
- **Germany is unlikely to begin enacting policies specifically designed to curtail China's development, but Germany will likely continue to impose modest restrictions on China.** Germany is unconvinced that China's development represents a security threat and does not share the U.S. goal of limiting China's technological growth. Consequently, Germany is unlikely to pursue American-inspired policies like sweeping export controls or outbound investment screening unless an immediate, incontrovertible security risk is present. But Germany's historic implementation of modest restrictions in specific issue areas will continue. As a result, Germany's regulations will likely remain significantly less restrictive than those of the United States in both the scope and scale of decoupling even as Germany seeks to detach from China in some areas.

2001–2015: Peak Engagement

The period from China’s accession to the World Trade Organization (WTO) in 2001 until 2015 creates a yardstick for engagement against which later periods are measured. From 2001 to 2015 Germany embraced deepened ties with China, driven by a flourishing economic relationship and chancellor Angela Merkel’s policy of engagement.

After China’s WTO admission, Germany and China enjoyed significant economic symbiosis. Germany’s export-driven economy benefited from China’s development, and the export of German goods to China ballooned from \$11 billion in 2001 to \$80 billion in 2015.⁷ Germany experienced growth in sectors like high-tech manufacturing and was spared from the intense competition and industrial hollowing out that the United States faced during China’s rise.⁸ China also benefited from this win-win relationship. Germany promoted favorable economic conditions for China in German markets, opposing EU efforts to enact tariffs against Chinese solar panels in 2013 and elevating Germany’s relationship with China to an “extensive strategic partnership” in 2014.⁹

Strong economic ties between Germany and China laid the groundwork for stable political relations. Merkel championed a foreign policy strategy of change through trade, hoping sustained economic interdependence with potential adversaries like China and Russia would encourage them to liberalize and become responsible stakeholders in the Western-led international order.¹⁰ This strategy was largely popular within the German establishment, which consisted mostly of politicians from the Christian Democratic Union and the Social Democratic Party.¹¹ While smaller parties, including the Green party and the Free Democratic Party, had some concerns about engagement with China, these groups did not wield significant political power during this period.¹² At the EU level, Merkel wielded her significant diplomatic influence to encourage stable ties with China and lobby for economic plans like the Comprehensive Agreement on Investment, which, if passed, would have expanded opportunities for investment between the EU and China and represented a significant diplomatic accomplishment.¹³

But since 2016 the Sino-German relationship has cooled. Two gradual shifts, one beginning in 2016 and another starting in 2021, have led to a more restrictive set of German policies and the partial separation of some components of the German and Chinese technology ecosystems.

2016–2021: Germany Grows Wary

Germany’s policy toward China began its first shift in 2016, when an influx of Chinese investment in German firms prompted an increase in Germany’s investment restrictions. German officials grew concerned about Chinese takeover of German firms and began to screen inbound investment more closely. Despite some concerns, Germany’s overall

economic and political relationship with China remained strong from 2016 to 2021, as evidenced by continued engagement in the auto industry and Germany's policy toward Huawei, even as German wariness of China's technological ascendancy led to increases in investment regulation.

Three drivers shaped Germany's decoupling trajectory during this period.

- 1. Robust economic engagement moderated German movements toward increased restriction.** The German auto industry thrived in China, German exports to China increased, and German investment in China remained stable from 2016 to 2021. Government officials sought to protect these close ties by forgoing restrictions like the Huawei ban advocated by the United States and proposed by hawkish members of the Bundestag.
- 2. U.S. attempts to convince Germany to copy U.S. decoupling policies were mostly unsuccessful.** The United States also began to take a more restrictive approach to China in the late 2010s. Often, the United States encouraged Germany to join U.S. restrictions like banning Huawei and regulating Chinese investment in technology companies. U.S. diplomatic pressure was largely ineffective, but U.S. intelligence sharing did lead to some cooperation between the United States and Germany regarding investment screening. Importantly, Germany maintained a threat perception of China that was consistently lower than U.S. threat perceptions.
- 3. China's technological development threatened to overtake some German industries.** Germany faced new levels of competition from Chinese firms in industries including solar panels, robotics, and advanced manufacturing. At the same time, Germany saw an increase in attempts by Chinese companies to acquire large stakes in German technology firms, which inspired greater scrutiny of inbound investment.

The Auto Industry

The auto industry has historically been central to the symbiotic Sino-German economic relationship, accounting for nearly 30 percent of German exports to China.¹⁴ In Germany, the industry makes up 10 percent of gross domestic product (GDP) and 40 percent of research and development spending.¹⁵

In 2009, China overtook the United States to become the world's largest automobile market in terms of both vehicle production and sales.¹⁶ German carmakers have been one of the main beneficiaries of this growth: German automakers entered joint ventures with Chinese companies and invested heavily in production facilities in China to increase their presence in the growing market.¹⁷ From 2018 to 2021, four German companies—Volkswagen, BMW,

Daimler, and BASF—were responsible for 34 percent of all European foreign direct investment (FDI) in China.¹⁸ Automakers' bets on China paid off. In 2021, German carmakers occupied a 20 percent share in China's market, and one out of every three German cars produced was sold in China.¹⁹

In sectors like the auto industry, the Chinese and German economies were highly complementary: An increase in Chinese demand drove sales for German automakers, who sought to expand their market presence in China. German officials prioritized the concerns of German industry, allowing CEOs and industry officials to frequently accompany Merkel on visits to China and to participate in signing economic agreements.²⁰ The climate was such that Daimler's board chair referred to China as the company's "second home" in 2016.²¹

Huawei

Strong economic relations encouraged stable political ties, and when U.S. president Donald Trump's first administration (2017–2020) began cracking down on Huawei in 2019, Germany rejected a similar course.²² By and large German officials did not believe Huawei constituted a legitimate threat to German security. A 2018 test of Huawei's network by the German Federal Office of Information Security found Huawei had met German standards and did not contain backdoors that might be exploited.²³ Germany's 2019 5G guidelines did not restrict the use of Huawei technology in domestic networks.²⁴

While U.S. diplomacy led the UK and France to restrict Huawei's presence in telecommunications networks, U.S. efforts were not effective in Germany.²⁵ Sometimes, U.S. officials took heavy-handed approaches, like former U.S. ambassador to Germany Richard Grenell's warning that the United States would limit intelligence sharing if Germany allowed Huawei in its 5G networks. But this confrontational diplomacy likely pushed the Merkel chancellery further from the U.S. point of view.²⁶ And Grenell's letter to the German Ministry of Economic Affairs and Climate Action (BMWK) about the risks of Chinese spying via Huawei probably rang false to a German government still feeling bitter after learning the U.S. National Security Agency had tapped Merkel's cell phone.²⁷ The Biden administration has reportedly encouraged German leaders in private conversations to remove Huawei equipment, but this more diplomatic posture also failed to encourage Germany to ditch Huawei.²⁸

Like its diplomatic efforts, U.S. sanctions on Huawei did not impede the company's global 5G rollout. Although Huawei estimated sanctions would result in a loss of \$10 billion for the company, those losses were mostly confined to its smartphone and consumer electronics units and did not limit its 5G equipment rollout in Germany.²⁹ Not only were sanctions ineffective, but also, Huawei's market share in Germany increased after U.S. restrictions.³⁰ By 2022, Huawei was more prevalent in Berlin than in Beijing, making up 60 percent of Germany's 5G infrastructure.³¹

Inbound Investment Regulations

Germany expanded investment scrutiny following an increase in attempted acquisitions of German technology companies by Chinese firms. In 2016, Chinese conglomerate Midea Group purchased KUKA, an industry-leading robotics manufacturer, prompting Germany to reevaluate its investment policy.³²

The KUKA sale was a turning point in Germany's posturing toward Chinese investment in key technologies.³³ German analysts feared similar acquisitions would cause Germany to lose control of its so-called national champions, pointing to similarities between Germany's and China's development plans for industry.³⁴ For Germany, the Plattform Industrie 4.0. agenda aims to ensure German leadership in the fourth industrial revolution.³⁵ The plan centers on digital transformation in high-tech manufacturing and creates an agenda for industrial development. Made in China 2025 details China's industrial ambitions and sets milestones for industrial development in high-tech manufacturing. The same industries prioritized by Germany for domestic development under Industrie 4.0—including microelectronics and robotics—were also targeted by China's strategy.³⁶ The similarities between these plans caused some German analysts to view advances by Chinese companies into the German market with wariness.³⁷ After the KUKA sale, German officials began to screen incoming Chinese investment more closely.

Later in 2016, Fujian Grand Chip Investment Fund attempted to purchase German semiconductor firm Aixtron. BMWK suspended the deal after receiving what the deputy minister referred to as “previously unknown security-related information.”³⁸ The German newspaper *Handelsblatt* reported that this “unknown information” was shared by U.S. intelligence agencies.³⁹ Shortly after, the U.S. Committee on Foreign Investment in the United States blocked the sale of a California-based subsidiary of Aixtron that produced technology used to upgrade the Patriot missile defense systems.⁴⁰ After the suspension and the blocked subsidiary sale, the Chinese buyer withdrew its bid.⁴¹ In this situation, U.S. intelligence sharing was effective in increasing German investment screening.

In 2018, Germany revised its inbound investment screening laws. BMWK lowered the threshold for scrutiny from 25 percent ownership to 10 percent for firms producing military equipment, IT security, or critical infrastructure, giving it greater jurisdiction over a wider swath of deals.⁴² Germany's gradual movement toward restricting inbound investment demonstrates how policies of engagement were tempered by growing concerns about China's technological development and takeover of German firms.

2021-2024: Germany's Patchwork of Restrictions

The German elections in 2021 laid the groundwork for German policy's second shift toward greater restriction. Scholz's center-left Social Democratic Party overtook Merkel's center-right Christian Democratic Union as the leading party and formed a coalition with the Green party and Free Democratic Party. Although Scholz promised foreign policy continuity during his campaign for chancellor, the Green party gained control of the foreign and economy ministries through the coalition agreement and have leveraged these positions to advocate for a range of restrictions toward China. Since 2021, Germany's policies toward automakers, Huawei, and investment regulations have become more restrictive than they were at any point during the Merkel era, though Germany's overall approach remains more limited than that of the United States.

Three main drivers shape Germany's contemporary decoupling trajectory.

- 1. The current German government is significantly more divided on its approach to China than previous coalitions were.** Although Scholz adheres roughly to Merkel's policy of engagement, the Green party, led by Foreign Minister Annalena Baerbock, advocates for a foreign policy toward China based on "dialogue and toughness."⁴³ These rhetorical divisions create a fractious China policy.⁴⁴ The coalition is often split along party lines, with Scholz advocating for engagement and Baerbock, along with her fellow Green member Economy Minister Robert Habeck, pushing for a diminished relationship with China.
- 2. Competition between German and Chinese firms has intensified and is becoming increasingly unbalanced.** While some German industries, like solar panels, suffered from Chinese competition in earlier periods, these losses were more than offset by a high degree of complementarity between Germany and China in other sectors, like automobiles.⁴⁵ But now, Chinese firms are threatening to take market share from traditional German industrial champions, especially auto companies, and these losses are not being matched by growth elsewhere. Despite this, the two economies remain heavily entwined. More than 1 million German jobs depend on trade with China, and 46 percent of German companies source supply chain inputs from China.⁴⁶
- 3. Russia's invasion of Ukraine challenged Germany's "change through trade" approach, causing Berlin to rethink its approach to China.** Russia's exploitation of German dependence on the Nord Stream pipelines threw a wrench in the long-held German belief that becoming economically entwined would encourage Russia to liberalize politically. President Frank-Walter Steinmeier, one of the architects of the "change through trade" policy, admitted that supporting dependencies like the Nord Stream 2 pipeline was a mistake that allowed Russia undue leverage over

Germany.⁴⁷ As Germany reeled from its dependence on Russian energy, German analysts began investigating parallel dependencies on China, growing concerned about potential Chinese sabotage during a crisis.⁴⁸

The Auto Industry

Long the bastion of Sino-German economic engagement, German automakers are struggling to compete with Chinese firms in the electric vehicle (EV) transition. While German automakers enjoyed a 20 percent market share for combustion vehicles sold in China in 2022, they accounted for just 4 percent of EV sales.⁴⁹ By 2023, domestic brands captured over 50 percent of the EV market in China.⁵⁰ Chinese competition has also made landfall in Germany's home market. Motor vehicle imports from China rose 75 percent in the first half of 2023, while German exports of vehicles to China dropped by 21 percent.⁵¹

This influx of Chinese vehicles occurred throughout Europe, prompting concerns about the long-term competitiveness of European automakers. In 2024, the European Union levied new tariffs against Chinese EV imports, raising the tariff from 10 percent to up to 38 percent.⁵² Germany lobbied strongly against this decision, concerned that EU tariffs might lead China to retaliate against European automakers, including German industry leaders.⁵³ Following the tariff announcement, the German auto association launched a lobbying effort to urge the EU to reverse its decision, citing potential counter-tariffs as the primary justification.⁵⁴

While Europe imposes tariffs, German automakers are investing in China's EV innovation ecosystem to reclaim market share in China and remain competitive globally.⁵⁵ Volkswagen, for example, invested \$700 million in Chinese EV startup XPeng Motors in 2023 with the aim of jointly developing and producing EVs in China.⁵⁶ This investment came as Volkswagen announced it planned to cut costs by \$10.8 billion by 2026, a move that led to speculation about job loss in Germany.⁵⁷ Similarly, in 2023 Bosch announced a \$1 billion investment in a research and development center in China.⁵⁸ Bosch also planned job cuts in Germany.⁵⁹

As the dominance of German carmakers wanes, the political interests of Germany and its automakers are starting to diverge.⁶⁰ For example, in 2022, Germany denied Volkswagen's request for investment guarantees for investment in Xinjiang over concerns about potential human rights abuses in the region's labor market.⁶¹ Traditionally, governments use investment guarantees to signal to businesses that the government will pursue a favorable business climate in the recipient country and protect domestic investors from endogenous political risks, like expropriation, war, and payment embargoes.⁶² But German guarantees for investment in China plummeted in 2023. While Berlin issued \$750 million in guarantees for investment in China in 2022, that number shrank to just \$71 million in 2023.⁶³ Despite this

decrease in protection for investments, total investment by German firms in China reached a record high in 2023.⁶⁴ Although the government may be reluctant to back German investment, German industry still sees the Chinese market as highly lucrative.

Huawei

Germany's energy dependence revealed by the Russian invasion of Ukraine dealt a blow to Germany's "change through trade" approach and illuminated parallel dependencies on China. Two senior German intelligence officials likened continued use of Huawei to reliance on the Nord Stream pipelines, fueling concern that China could manipulate or restrict Germany's telecoms networks during a crisis.⁶⁵ Baerbock argued that Germany needed to learn from its reliance on Russia and limit critical dependencies on China.⁶⁶

In September 2023, Reuters reported that Germany's Interior Ministry was considering a proposal that would restrict Huawei's presence in networks to 25 percent by 2026, down from 59 percent currently.⁶⁷ The leaked proposal did not contain incentives for German companies to restructure or compensation for removing Huawei equipment.⁶⁸ According to the tech market research firm Light Reading, conservative estimates for the cost of replacing Huawei equipment in the three largest German networks run over \$2 billion.⁶⁹

Inbound Investment Regulations

Since the 2016 KUKA deal, German screening of inbound investment has consistently grown more restrictive. BMWK blocked the sale of two semiconductor industry firms to Chinese buyers in 2022.⁷⁰ Following the blocks, Habeck communicated that investment scrutiny would be a key component of Germany's future economic policy.⁷¹

Also in 2022, BMWK began negotiations with Chinese shipping giant COSCO Shipping, which sought to acquire a 35 percent stake in the Port of Hamburg's Tollerort container terminal, owned by HHLA.⁷² After opposition by some German lawmakers and extensive negotiations, COSCO obtained a 24.99 percent stake in the port.⁷³ Notably, a 25 percent stake would have required the approval of the entire German cabinet, which would have been unlikely because of opposition from the Green party's cabinet members. Critics argued that allowing COSCO a stake left Germany vulnerable to coercion, and Baerbock claimed the deal "disproportionately expands China's strategic influence on German infrastructure."⁷⁴ The United States also opposed Chinese efforts to acquire a controlling stake in the port and communicated this with Germany.⁷⁵

But German investment policy has not developed unidirectionally. In 2022 BMWK blocked a Chinese buyer's attempt to acquire Heyer Medical AG, a medical equipment manufacturer, citing the significance of ventilator technology to national security during the ongoing COVID-19 pandemic.⁷⁶ However, the Berlin Administrative Court, the highest authority

for administrative cases in Germany, overturned BMWK's decision in 2023, ruling that BMWK had not allowed a proper hearing before blocking the acquisition.⁷⁷ While the court did not make a ruling on substantive matters, the decision demonstrates Germany's continued deliberation over investment policy.

2024-2030: The Future of Germany's Decoupling Trajectory

Over the next five years Germany will likely continue to head toward a modest decoupling by enacting increasingly restrictive policies, albeit slowly and less extensively than the United States. Emerging trends in the German auto industry, policy toward Huawei, and investment screening highlight the themes that will texturize Germany's future decoupling trajectory.

Three drivers will continue to shape Germany's decoupling trajectory throughout the 2020s.

- 1. Domestic political divisions remain, but conversation has generally shifted away from the engagement of the Merkel era toward a shared skepticism about ties to China.** The Green party along with the smaller Free Democratic Party continue to advocate for a diminished relationship with China, while Scholz and the Social Democratic Party attempt to balance continued engagement with a desire to be clear-eyed about security threats posed by China. These divisions mean that Germany's policy debate surrounding China will likely continue to seesaw even as Germany moves slowly toward a more restrictive policy climate. Coalition tensions could become increasingly complex when Germany elects a new government in 2025.⁷⁸
- 2. There are ever-fewer areas for win-win economic exchange between Germany and China.** Noah Barkin and Gregor Sebastian describe this trend as an end to "a decades-long period in which the German and Chinese economies were characterized by a high degree of complementarity."⁷⁹ The full extent of Sino-German competition is yet to be seen, but the relationship is not as symbiotic as it once was.⁸⁰ As competition between German and Chinese firms becomes increasingly zero-sum, Germany will seek to thread the needle between protecting German competitiveness in sectors like automobiles and provoking a response from China that would hinder German firms operating there.
- 3. Germany is gradually reaching a higher threat perception of China.** This increased threat perception is not wholly due to any recent changes in Chinese behavior. Rather, an altered global context has intensified German concerns with long-standing threats from China. After all, Chinese bellicosity and so-called wolf-warrior diplomacy are quite familiar to German leaders. While Germany was historically willing to ignore such practices, a changing geopolitical zeitgeist brought about by Russia's invasion of Ukraine has led Germany to restructure its "change

through trade” policy and decrease its tolerance for reliance on foreign adversaries. Germany is increasingly wary of technological ties to China and will seek to avoid replicating anything similar to German dependence on Nord Stream.

The Auto Industry

Changes in the auto industry highlight the uncertain future of the Sino-German economic relationship. Automakers are currently caught in a vice. Both in China and at home, German carmakers face increased competition from Chinese firms and a declining market share. EU tariffs on Chinese EVs would probably protect German automakers in Europe. But retaliatory tariffs enacted by Beijing would significantly undermine German automakers’ efforts to reclaim market share in China, which is why there has been speculation that Germany will lobby the EU to abandon its EV tariffs.⁸¹ Thus far, China has signaled that it is considering counter-tariffs in areas like agriculture and aviation, which would predominantly target France, the key sponsor of the EU tariffs.⁸² However, China has also noted that it is considering a tariff of up to 25 percent on some vehicle imports, confirming the fears of German automakers.⁸³

The investment of German automakers in Chinese EV innovation ecosystems could result in an increased market share for German joint ventures with Chinese firms. But it is not clear that German automakers can regain their former place of dominance in China. And, if current trends continue, more vehicle production jobs could move from Germany to China, which could increase friction between the German government and business.⁸⁴

Huawei

Germany’s Huawei policy is emblematic of Berlin’s decoupling trajectory as a whole: slow and limited, but gradually more restrictive. Years of pressure from the United States and some German lawmakers have slowly led to marginal movements toward restricting Huawei, but Germany has yet to take decisive action against Huawei.

If Germany eventually decides to remove Huawei equipment from German networks, it will incur a significant cost. Estimates for replacing Huawei’s 5G equipment in Germany run into the billions of dollars, and if the U.S. experience with “rip and replace” is any lesson, actual costs will likely be higher than what telecommunications firms (telcos) anticipate.⁸⁵ It will be significantly more expensive for Germany to ban Huawei now than if the country had made the decision to restrict Huawei in 2019. However, this may be a cost Germany is willing to bear. Paying a higher future cost might, in Germany’s mind, be a fair exchange for greater confidence in its security assessment. Germany may prefer a potentially costlier, wait-and-see approach where it initially avoids regulation and is willing to pay more in the future if restrictions are needed, rather than enact restrictions that are later deemed unnecessary.

Investment Regulation

Germany's investment policy demonstrates that the country's decoupling trajectory is in flux and can become less restrictive as well as more so. Although BMWK has ramped up restrictions, administrative courts have overruled some BMWK decisions, suggesting that Germany's investment regulatory frameworks are still under development.

German debate on this topic is ongoing. In 2023, Habeck floated the idea of outbound investment screening mechanisms to regulate German investment in China.⁸⁶ He lauded U.S. outbound screening mechanisms, saying Germany "should do the same."⁸⁷ However, the proposal was quickly nixed following outrage in the business community. Any such controls would face opposition in the Bundestag where lawmakers including Scholz oppose outbound investment regulations.⁸⁸

Implications for the United States

Germany will be an occasional ally rather than staunch supporter of U.S. decoupling policies. Differences in German and U.S. policy are driven most clearly both by differing security assessments of the risks posed by China and by each nation's level of willingness to jeopardize business opportunities in China. German policy lags U.S. policy in terms of restrictiveness, and Washington should not expect Berlin to take a leading role in areas such as export controls. Still, U.S. diplomacy has at times been influential in spurring Germany onward, primarily when accompanied by specific intelligence information, and Germany may respond more favorably to some actions than others. As U.S. policymakers navigate the complex interplay between the decoupling trajectories of Germany and the United States, they should keep the following in mind.

- **Germany will not likely be a strong partner for U.S. efforts to thwart China's technological development.** Germany's decoupling policies seek to reduce dependencies without provoking retaliation against German firms operating in China. Because of this, Germany will not play a significant role in augmenting or reinforcing U.S. policies designed to limit China's growth. For example, Germany has resisted adopting measures similar to the 2022 U.S. unilateral export controls on semiconductors and manufacturing equipment. While the United States restricts the export of some semiconductor manufacturing chemicals to China, Germany so far continues to export chip manufacturing chemicals to China.⁸⁹
- **Broad U.S. claims about security threats are unlikely to be significant determinants of German policy.** Years of warnings from the United States about Huawei's threat to network security did not influence Germany's Huawei policy. The German government did not seriously consider restricting Huawei until officials arrived at their own independent security conclusions, and even with a heightened sense of

risk, Germany has not yet moved against Huawei. More generally, German officials do not seem to believe that what the United States labels a “security threat” should automatically be seen as a threat to German security.

- **Germany is likely to respond more favorably to intelligence sharing regarding specific, immediate security risks.** For example, U.S. information that Aixtron technology was used in Patriot missile weapons systems led Germany to halt a proposed acquisition by a Chinese firm. Such intelligence sharing provides an important opportunity for Germany and the United States to collaborate to enact narrowly targeted restrictions.
- **How to balance industrial investments and avoid a subsidy race remains an open question for the United States and Germany.** Though not discussed at length in this paper, many policymakers are concerned that European and American industrial investments may lead to a subsidy race between the two. Europe has expressed frustration with the United States Inflation Reduction Act, which the EU worries is an anti-competitive subsidy designed to unfairly support American industries.⁹⁰ Dialogue between the United States, Germany, and the EU on how best to foster domestic industry while remaining engaged in transatlantic trade is ongoing.⁹¹

Japan’s Decoupling Trajectory

Japan is the world’s fourth-largest economy, an important player in many technology sectors, and the closest U.S. ally in East Asia. Japan, and its relationships with the United States and China, will play a critical role in shaping the future of global technology ecosystems. This case study charts the evolution of Japan’s technological decoupling from China and the interplay of U.S. and Japanese decoupling policies across three distinct phases from 2000 to 2024.

Case Study Takeaways

- **Japan’s implementation of decoupling policies has accelerated considerably since 2018.** Since 2018, Japan has enacted a number of restrictive measures including effectively banning Huawei from domestic networks and regulating the export of semiconductor equipment to China, while also implementing policies designed to strengthen domestic resilience. This acceleration was sparked by an increasingly

aggressive decoupling agenda set by the United States, which co-opted Japan into policies such as semiconductor export controls and provided cover for Japan to address economic security concerns without unilaterally provoking China.

- **Japan prioritizes policies designed to limit susceptibility to coercion.** Japan has made domestic economic resilience a hallmark of its foreign policy agenda. By pursuing duplicative supply chains, building strong domestic industry, and limiting Chinese dominance in key Japanese markets, Japan has sought to reduce China's potential to leverage Japanese dependence during a crisis.
- **It is unclear whether Japan shares the U.S. goal of preventing China from developing advanced technologies.** Although U.S. policymakers avow otherwise, Washington's increasingly broad and aggressive use of tools like export controls, investment restrictions, and the blacklisting of Chinese companies suggest the United States desires to limit China's general technological development.⁹² Japan's objectives in this area are less clear; Japan may feel caught between avoiding retaliation from China and working alongside the United States. Japan cooperated with some U.S. restrictions, like semiconductor export controls, but did so only after pressure from the United States. Notably, Japan has not initiated similar restrictions on other technologies and has not sanctioned Chinese companies targeted by the United States.⁹³
- **Japan tends to enact policies designed to promote domestic resilience more quickly than the United States, but when passing similar policies, the United States tends to allocate more resources for policy implementation.** The United States, while sometimes taking significantly longer than Japan to develop domestic resilience measures, often eventually brings a proverbial bazooka to the gunfight. For example, while Japanese telcos began quietly replacing Huawei 4G infrastructure in 2018, the United States was slow to adopt similar measures in its domestic networks. But when the U.S. Federal Communications Commission (FCC) introduced what is now called the "rip-and-replace" mandate in 2020, it also created a multibillion-dollar replacement fund while Japan had no comparable removal incentives.
- **Japan has been somewhat successful at supplementing China's role in supply chains, but it is not clear if Tokyo has achieved what it considers to be adequate resilience.** Policies aimed to decrease reliance on China have been a central component of Japan's decoupling initiatives. However, Japanese efforts to diversify supply chains for rare earth metals, personal protective equipment, and manufactured goods have been more successful in supplementing than eliminating dependence on China.⁹⁴ It is unclear whether Japan believes the degree of diversification it has obtained will immunize Japan from future supply shocks, or if diversification efforts will need to continue. With a longer time horizon and substantial resource allocation, Japan could further reduce dependence on China, but cutting China out of supply chains will be neither quick nor cheap.

- **Japan’s decoupling policies have been more restrictive than those of Germany and more effective than those of India.** Unlike Germany, Japan has cooperated with some U.S. restrictive measures, and has gone to significant lengths to insulate its domestic economy from dependence on China. In areas where Germany has enacted regulations, like investment screening, Japanese policy is consistently more restrictive than German policy. Unlike India, Japan has the economic capacity to pursue serious relocation and diversification efforts. While India harbors the most adversarial approach to China, it lacks the economic and bureaucratic heft necessary to successfully implement decoupling policies like creating alternative supply chains.

2000–2009: Hot Economics, Cold Politics

The Sino-Japanese relationship during the early 2000s is often characterized by the phrase “hot economics and cold politics.”⁹⁵ By separating the economic and political components of their relations, China and Japan pursued deep economic integration in the face of an adversarial political climate.

As China developed rapidly in the early 2000s, Japan invested heavily in China, and trade between the two blossomed. Japan sought access to a burgeoning manufacturing ecosystem in China, and China saw Japanese consumers as a key export market. Bilateral trade surged from \$72 billion in 2000 to over \$200 billion in 2009.⁹⁶ In 2002, China became Japan’s largest trading partner, and Japan was China’s second-largest trading partner following the United States.⁹⁷ The makeup of trade also evolved as lower-value-added products, like textiles and footwear, made up a steadily smaller share of China’s overall exports to Japan while trade in manufactured technologies like computers, telecommunications equipment, and machines increased significantly.⁹⁸

Japanese policy during this period supported economic engagement. Japan was the first industrialized country to approve China’s bid for WTO membership in 1999, Japan and China agreed to a currency-swap partnership to facilitate bilateral investment, and Japan led a robust Official Development Assistance (ODA) program providing aid to China.⁹⁹ The ODA program was particularly significant for Sino-Japanese economic relations. Part reparations for Japanese occupation during the 1930s and 40s, part development aid, Japan’s ODA program provided billions of dollars in low-interest loans to China for infrastructure and economic development between 1979 and 2008.¹⁰⁰ Japan’s Ministry of Finance pointed to the loans as an instrumental part of China’s rapid development and a pillar of Sino-Japanese relations in the late twentieth and early twenty-first centuries.¹⁰¹

But even as economic exchange boomed, political tensions remained significant. Rapprochement was limited by several relational sore points, including: a long-standing dispute over ownership of the Senkaku/Diaoyu Islands, an uninhabited atoll claimed by each nation; enduring concerns about historical narratives surrounding Japan’s invasion and occupation of China in the twentieth century; and increasing feelings of animosity between

the Japanese and Chinese citizenries.¹⁰² Flare-ups in political tensions surrounding these points were common during this period.¹⁰³ For example, frequent visits by Japanese leaders to the Yasukuni Shrine, a Shinto shrine in Tokyo that serves as a memorial for Japanese soldiers, caused outrage in China, which perceived such visits as religious veneration of deceased Japanese war criminals.¹⁰⁴ And in 2005, the Japanese government's decision to authorize a history textbook that downplayed Japanese aggression during World War II led to mass demonstrations in China.¹⁰⁵ Nevertheless, economic relations flourished in the early 2000s despite political tensions.¹⁰⁶

But since 2010, the economic and political components of the Sino-Japanese relationship have become increasingly tangled. China's weaponization of trade reliance in 2010 prompted Japan to reconsider its ties to China, and the United States' increasingly aggressive posturing toward China, coupled with Japan's close security and economic partnerships with the United States, have together pulled Japanese policy in a more restrictive direction.

2010–2017: Economic Tensions Grow

In 2010, Japan began to view its economic relationship with China as a potential security vulnerability, but despite increasing threat perceptions Japan enacted relatively few decoupling policies from 2010 to 2017. Japan's decoupling trajectory during this period was shaped by two important events. First, the balance of power in the Sino-Japanese relationship shifted in favor of China as the Chinese economy surpassed Japan's in 2010. While this had long been expected, the event was symbolically important, placing the faltering Japanese economy in sharp relief with the ascendance of China's.¹⁰⁷ This shift corresponded with growing hostility between the Japanese and Chinese governments and the sentiments of their citizenries.¹⁰⁸ Second, and perhaps related to the first, China sought to exploit Japan's economic reliance on Chinese supply chains to achieve political goals. China flouted the "hot economics, cold politics" distinction of prior years by leveraging its control over rare earth supply chains to coerce the Japanese government. China's decision exposed Japanese vulnerabilities, and Japan quickly sought to reduce reliance on China to limit susceptibility to Chinese sabotage during future crises. The rare earths crisis would prove a harbinger of things to come: The economic tensions revealed by China's weaponization of trade simmered throughout the 2010s, laying the groundwork for decoupling initiatives to accelerate beginning in 2018.

Rare Earths Crisis

In 2010 China exploited Japan's reliance on Chinese rare earth supplies to obtain leverage over Japan during a territorial dispute. In September 2010, Japanese authorities detained a Chinese fishing vessel that had rammed into a ship from the Japan Coast Guard off the coast of the disputed Senkaku/Diaoyu Islands.¹⁰⁹ In response, China disrupted rare earths shipments to Japan, which at the time relied on China for over 80 percent of its rare earth

imports.¹¹⁰ This coincided with China's decision to significantly reduce its global rare earth exports throughout 2010 and 2011, which led to global price increases.¹¹¹ To avoid similar exploitation in the future, Japan mobilized the state-backed Japan Oil, Gas and Metals National Corporation (JOGMEC) to build alternative supply chains.¹¹²

In early 2011, JOGMEC reached an agreement with the Australian mining company Lynas Rare Earths to design a supply chain independent from China's control. JOGMEC agreed to invest \$250 million in Lynas, and Lynas committed to providing at least 8,500 metric tons of rare earths to Japan per year, amounting to about 30 percent of Japan's consumption in 2011.¹¹³ Japan also provided funds to begin stockpiling some rare earth metals, improve domestic capacity for rare earth recycling, and develop technologies to use alternative materials.¹¹⁴ Through these efforts, Japan reduced its reliance on Chinese rare earths from 90 percent of total imports in 2008 to 58 percent in 2018.¹¹⁵ This diversification, while important, was costly. Japan allocated about \$1.2 billion for diversification initiatives, including the \$250 million investment in Lynas, which Japan continued to support by deferring and then forgiving interest payments.¹¹⁶ Japan's experience suggests that while building resilience into supply chains is possible, it requires highly coordinated efforts and significant resource allocation. Even after these efforts, Japan still imports most of its rare earths from China, suggesting that completely cutting China out of certain supply chains is probably an unrealistic goal in the short to medium term.

The United States also faced supply shortages in 2011 but did not pursue a similar diversification strategy. Despite a 2010 Department of Energy report indicating that rare earth shortages posed a critical vulnerability to the U.S. economy and that reducing dependence on Chinese imports could take up to fifteen years, the United States did not begin diversification and instead turned to the WTO for resolution during the rare earths crisis.¹¹⁷ The United States, joined by Japan and the EU, argued to the WTO that China's export quota reductions violated WTO rules. In 2014 the WTO agreed, and China removed its restrictions.¹¹⁸ Although U.S. reliance on China had declined from 87 percent of imports in 2010 to 54 percent in 2012 amid the rare earths crisis, the United States gradually resumed high dependence on Chinese rare earth imports after the WTO ruling.¹¹⁹ In this instance, Japan's policies did not influence U.S. decisionmaking. But later in the 2010s, U.S. decoupling policies inspired similar Japanese actions.

2018-2024: The United States Outpaces Japan

U.S. restrictions against China helped accelerate Japan's decoupling agenda, inspiring similar policies and allowing Japan to act on established security concerns without unilaterally provoking China. While Japan continued to scale back supply chain reliance on China independently of the United States, U.S. decisions to ban Huawei, restrict the export of semiconductor manufacturing materials, and revise investment screening protocols preceded

similar decisions by Japan. Although Japan cooperated with some restrictive U.S. measures targeting China's access to technologies, Tokyo seemed reluctant to pursue policies that could be construed as attempting to thwart China's development.

During this period, Japan committed to domestic economic resilience as a guiding policy priority. Japan leaned further into the supply chain diversification efforts of previous eras, passed regulations for screening inbound investment, and created a comprehensive economic security agenda.

Huawei

Following the rare earth crisis, Japan became increasingly concerned about technological reliance on China throughout the 2010s, and in 2018 Japan moved to restrict Huawei's access to domestic networks. Concerned that allowing Huawei equipment would provide China leverage over Japan and an access point to siphon off sensitive data, the Office of the Prime Minister issued telecommunications procurement guidelines that amounted to a de facto ban on Huawei for government contracts.¹²⁰ This decision was reportedly motivated in part by security intelligence shared by the United States, which had issued a similar ban on Huawei a few months prior.¹²¹

Although Japan did not explicitly ban Huawei for private use, the largest Japanese telcos announced they would not use Huawei equipment in their 5G networks.¹²² Japanese firms also moved quickly to replace Huawei equipment in their 4G networks, even without assistance from the Japanese government. SoftBank, one of the largest Japanese telcos, reported in 2018 that it would begin replacing its Huawei 4G infrastructure with equipment produced by Ericsson and Nokia, based in Sweden and Finland, respectively.¹²³ SoftBank's decision to remove Huawei equipment came well before the U.S. FCC instituted its rip-and-replace program. But when the FCC did mandate the replacement of Huawei technology in 2020 in the United States, it allocated \$1 billion to help small telcos replace Huawei equipment.¹²⁴ The figure has since been expanded to \$1.9 billion, and the FCC has received over \$5.6 billion in funding requests from telcos.¹²⁵ The Japanese government has not sponsored the removal of Huawei telecom equipment. So while the United States did not move as quickly as Japan to replace Huawei equipment in domestic 4G networks, when Washington officials did decide to act, they did so with much greater scope than Japan, allocating billions of dollars to replace equipment.

But while the United States sanctioned Huawei and sought to reduce its market share elsewhere, Japan did not pursue similar actions. In early 2019, the Trump administration added Huawei to the Entity List, an export control tool that limited exports to Huawei.¹²⁶ Japan did not pursue a similar decision, and it is unclear the extent to which Japan shared the goal of limiting technology access to Huawei. It is possible that, in the eyes of Japanese officials,

U.S. controls were sufficient to limit the flow of technology to Huawei. The U.S. Foreign-Direct Product Rule, which restricts the export of goods made abroad with the benefit of controlled U.S. technologies, led to a 40 percent reduction in Japan's exports of related goods to China.¹²⁷

Supply Chain Relocation

In the aftermath of the COVID-19 pandemic, Japan pursued additional supply chain diversification efforts. Japan's imports from China fell by nearly 50 percent in the early months of the pandemic because of supply chain failures, disrupting everything from household consumption to industrial manufacturing in Japan.¹²⁸ To address these failures, Japan created an offshoring fund to incentivize Japanese companies to open new production centers outside of China.¹²⁹

In 2020, the Shinzo Abe administration devoted \$2.2 billion to the offshoring fund, claiming that Japan had “become dependent on China” and needed to “make supply chains more robust and diverse, broadening our supply sources and increasing domestic production.”¹³⁰ The *Washington Post* reported that eighty-seven Japanese companies received relocation assistance through this program to open new production facilities in Japan and Southeast Asian nations.¹³¹ The companies receiving assistance were concentrated in manufacturing of medical and personal protective equipment, textiles, and some automobile equipment.¹³² But the relocation effort was more successful in building redundancies into supply chains than in eliminating reliance on China. For example, Iris Ohyama, a household goods manufacturer and one of the flagship companies for the relocation incentive, used the subsidy to begin manufacturing face masks in Japan while at the same time expanding production in China.¹³³ These efforts were consistent with Japan's relocation strategy following the rare earths crisis. In both cases, diversification was possible but expensive, and it resulted in supplementing rather than eliminating reliance on China.

Here, Japan outpaced U.S. supply diversification efforts and did not inspire similar policies in the United States. Washington reportedly considered a \$25 billion reshoring fund, but such a proposal never gained significant political traction.¹³⁴ Instead, the Trump and Biden administrations opted for a string of loose executive orders encouraging U.S. federal agencies to purchase U.S.-produced goods. The orders do not include funding or incentives for production relocation.¹³⁵

Economic Security Legislation

In the late 2010s, Japan began to cement economic security as a key policy priority and implemented several regulations designed to promote domestic economic resilience while also scaling back technological ties with China.

In 2019 Japan amended its inbound investment policies to expand investment screening and cap foreign investment in Japanese companies related to national security at 1 percent ownership.¹³⁶ Although the regulations made no mention of China, they were widely viewed as an effort to limit technology leakages to Chinese and other foreign investors.¹³⁷

U.S. policy seemed to influence Japan's decisions. In 2018 the United States passed the Foreign Investment Risk Review Modernization Act, which expanded the jurisdiction of the Committee on Foreign Investment in the United States to review investment and framed investment screening as a national security priority.¹³⁸ Japan's Ministry of Finance noted that the U.S. passage of the bill played an important role in framing Japan's decision to make national security a critical component of FDI screening.¹³⁹

In 2022, Japan expanded its economic security initiatives beyond investment screening, codifying several policy priorities and creating a new cabinet position for Minister of Economic Security through the 2022 Economic Security Promotion Act. While the bill does not reference China, some observers viewed the bill as a response to Sino-Japanese technological tensions.¹⁴⁰ The bill outlines an agenda focused on improving critical infrastructure security, stabilizing supply chains, expanding public-private collaboration on technological innovation, and protecting intellectual property and patent rights.¹⁴¹ Under the act, private companies can apply for grants, loans, and subsidies to assist with supply chain securitization, stockpiling goods, and research funding.¹⁴² Nikkei Asia reported that Japan's budget for 2022–23 provided \$7.8 billion toward the costs of assistance under the economic security law.¹⁴³ The law also includes provisions designed to limit technology leakage and created a classified patenting system that allows the Japanese patenting office to apply a “secret” label to patents that contain information deemed relevant to national security.¹⁴⁴ This provision was widely viewed as a response to China's past theft of intellectual property.¹⁴⁵

These regulations seem to be in line with Japan's preference for a subtle policy agenda. While these laws do not specifically target China, they lay the groundwork for future restrictions and allow Japan to gradually detach itself from China.

Export Controls

As the United States pursued increasingly restrictive policies designed to limit China's technological development, Japan often cooperated with these policies, most notably by implementing restrictions on the export of advanced semiconductor manufacturing equipment. In March 2023, following lengthy consultations with the United States and the Netherlands, Japan imposed regulations on twenty-three products related to semiconductor manufacturing.¹⁴⁶ Japan's regulations were not specifically aimed at China and instead required Japanese companies to obtain an export license from the Ministry of Economy, Trade and Industry (METI) before exporting any of the listed semiconductor manufacturing pieces to any

country. Export license applications are simpler for entities that Japan has long coordinated with under the 1996 export control regime known as the Wassenaar Arrangement, including the United States, South Korea, and the EU.¹⁴⁷

Japanese export controls differ from U.S. controls in two main ways. First, unlike the United States, Japanese law does not restrict the reexport of controlled items. METI can enter into a goodwill agreement with exporters to limit the reexport of controlled items, but METI does not have the ability to enforce these agreements through legal action.¹⁴⁸ Second, Japanese controls do not restrict Japanese nationals from working in the Chinese semiconductor industry, while U.S. controls do restrict U.S. persons' involvement.¹⁴⁹

After announcing the regulations, Yasutoshi Nishimura, the head of METI, made clear that Japan's controls "are not in line with the US measures taken in October last year."¹⁵⁰ Nevertheless, the restrictions were viewed by China as an extension of U.S. controls.¹⁵¹

2024-2030: The Future of Japan's Decoupling Trajectory

Several themes will shape how Japan's decoupling trajectory evolves in the future. First and most importantly, the extent to which Japan desires to limit China's access to key technologies remains unclear. On the one hand, Japan has reinforced U.S. semiconductor manufacturing export controls, which is a significant step in hampering China's development of critical technologies. However, Japan has not initiated similar policies and has attempted to distinguish its regulations from U.S. restrictions. Two competing interpretations of Japan are possible. On the one hand, Japan may not want to broadly limit the flow of technologies to China and therefore will only cooperate with such U.S. controls under substantial pressure and with significant reservations. On the other hand, perhaps Japan gladly accepts U.S. leadership so that both countries can then enact restrictions against China while Washington takes the heat. If fear of retaliation is Japan's primary inhibition, then cooperating with U.S. policies may allow Japan to avoid attracting China's ire.

This highlights a second key theme: The extent to which China retaliates against restrictions will likely be a major factor in Japan's willingness to enact decoupling policies. So far, Japan has been able to cooperate with U.S. controls without facing significant backlash from China. But China is probably more likely to retaliate against the smaller partner, Japan, rather than taking the U.S. head-on. While the United States has the buffers of physical distance and a more diversified set of trading partners, Japan is without these luxuries and likely feels it must tread more lightly when enacting restrictions. China's recent restrictions on graphite exports, which are a key input for lithium-ion batteries, are illustrative of this point. In late 2023, China restricted the export of graphite to Japan and the United States, possibly in retaliation for increased U.S. restrictions on semiconductor manufacturing equipment that occurred around the same time. But while Japan experienced a 42 percent

reduction in imports of Chinese graphite, U.S. imports fell by just 20 percent.¹⁵² This reduction may not be entirely due to export restrictions—for example, demand may have also decreased—but such episodes demonstrate how Japan may be first in the line of fire if China chooses to retaliate.

Finally, the strength of U.S.-Japan bilateral economic and political engagement will affect Japan's willingness to cooperate with U.S.-initiated restrictions. Despite a strong security and economic partnership, the relationship is not without tensions. The Biden administration's stated intention to block the acquisition of the company U.S. Steel by Japan's Nippon Steel Corporation could strain the alliance and limit coordination on China.¹⁵³ U.S. President-Elect Donald Trump also stated during his campaign that he would not allow Nippon Steel to acquire U.S. Steel.¹⁵⁴ While some observers have suggested these claims were more the result of U.S. election-year politics than actual economic security concerns, such decisions could communicate that U.S. protectionism extends well beyond China and also applies to partners and allies.¹⁵⁵ If Japan believes that U.S. protectionist policies will be applied against Japan, it may be more reluctant to assist with enforcing similar policies against China.

India's Decoupling Trajectory

In many ways, India plays a vastly different role in the global community than the United States, Germany, or Japan. India is a developing economy, a traditionally nonaligned nation, and the self-described “voice of the Global South.”¹⁵⁶ The Indian outlook on economic and technological relations with China is fundamentally different from the stance of major developed economies. Although India shares some of the security concerns of other nations, it is also working to capitalize on movements toward geoeconomic fragmentation, recognizing that for India there is something to be gained in the context of global economic restructuring.

Case Study Takeaways

- **Since 2020, India has accelerated its attempts to reduce its technological ties to China.** Beginning with a series of restrictions on Chinese apps and software, India has attempted to limit citizens' use of Chinese consumer technology and has tried to eliminate Chinese investment and hardware in sensitive sectors. India also sought to incentivize investment in domestic manufacturing for technologies like mobile handsets and semiconductor chips to fulfill the dual goal of increasing its global manufacturing market share and reducing its reliance on China.

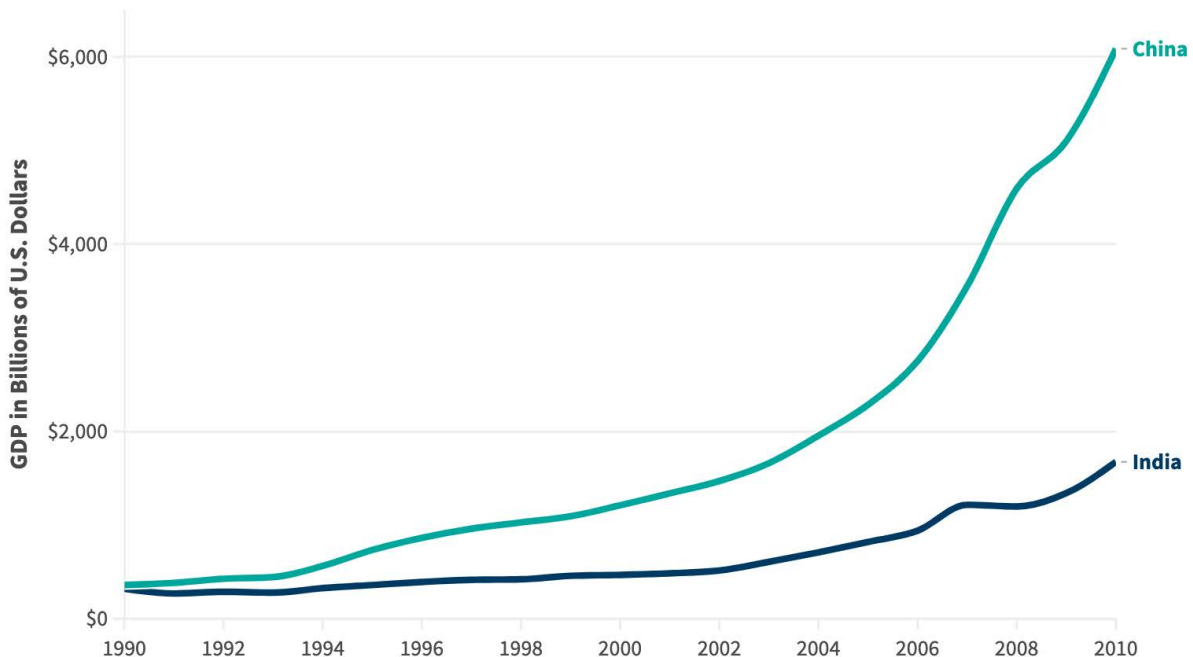
- **India’s recent push toward decoupling is perhaps unsurprising because the Indian and Chinese economies have been more competitive than complementary since at least 2000.** Competition between the Indian and Chinese economies likely constrained the development of India’s manufacturing sector.¹⁵⁷ Although India developed a strong tech sector fueled by software and information technology service exports, these products never enjoyed high market penetration in China. Indian policymakers have been consistently frustrated by India’s substantial trade deficit with China and the lopsided degree of Indian dependence.
- **India potentially stands to gain from geoeconomic restructuring.** Conventional macroeconomic wisdoms suggests that China, the United States, and other major economies will experience significant losses from economic restructuring and face trade-offs between resilience and efficiency, at least in the short to medium term. India, however, might benefit from any global decoupling from China. Specifically, if India can capitalize on supply chain diversification efforts and China Plus One initiatives, it could experience growth above standard projections.¹⁵⁸
- **Paradoxically, some of India’s attempts to increase domestic manufacturing have broadly resulted in higher dependence on China.** India increasingly attempts to become self-reliant for technologies like mobile phones, semiconductor chips, and telecoms equipment, but in doing so, finds itself increasingly dependent on China for supply chain inputs. India’s domestic manufacturing efforts have resulted in a larger trade deficit with China and higher imports of some technologies. While a large bilateral trade deficit is not always harmful, it runs counter to the goals of many Indian policymakers to reduce reliance on China.¹⁵⁹ Indian policymakers seem aware of this conundrum but are still deciding how best to combine Chinese investment and imports with domestic desires for self-sufficiency.¹⁶⁰
- **It is unclear which further ties to China India can afford to cut.** India has limited its reliance on China by banning apps and restricting Chinese presence in key industries at a relatively low cost to itself. But its attempts to limit reliance on China for consumer technology and supply chain inputs have been thwarted by the lack of an economically viable alternative.
- **India cannot fully or quickly replace China’s role in global manufacturing supply chains.** Despite heavy investment in India’s manufacturing ecosystem, development has been difficult and is mostly limited to the final stage of production, assembly. India will probably move up the value chain in manufacturing but faces significant structural impediments and lacks a competitive edge to claim manufacturing market share. At least in the near future, global companies will not be able to move large portions of their supply chains from China to India.¹⁶¹

2000–2020: India’s Disgruntled Dependence

The Sino-Indian relationship has been consistently tense across the period studied in this paper. Political relations between the two states are complicated by a long-standing territorial dispute over the shared 2,100-mile border known as the Line of Actual Control (LAC). China and India competed to develop infrastructure along the LAC, created military outposts, and resisted incursions by the other side.¹⁶²

Sino-Indian economic ties have historically been a mixed bag for India.¹⁶³ Unlike China’s relationship with the United States and other developed economies, there was never a period of high complementarity without intense competition between India and China. Instead, the two have been locked in an economic race. Although both economies grew at relatively similar rates during the 1990s, China’s growth began to outstrip that of India in the early 2000s.¹⁶⁴ In 1990, India’s GDP was \$320 billion, slightly below China’s GDP of \$360 billion.¹⁶⁵ But by 2020, China’s GDP of \$17.8 trillion was over five times the size of India’s \$3.2 trillion GDP (see figure 1). And while trade between the two nations increased dramatically from 2000 to 2010, this growth was disproportionately driven by an increase in Chinese exports and an expanding Indian trade deficit.¹⁶⁶

Figure 1. China’s GDP Growth Has Far Outpaced India’s



Source: World Bank, “GDP (current US\$) - India,” accessed November 21, 2024, <https://data.worldbank.org/indicator/NY.GDP.MKTP.CD?locations=IN>; World Bank, “GDP (current US\$) - China,” accessed November 21, 2024, <https://data.worldbank.org/indicator/NY.GDP.MKTP.CD?locations=CN>.

China's massive growth in manufacturing sectors out-competed India's own manufacturing development, leading to an industrial hollowing out of India's emerging manufacturing infrastructure.¹⁶⁷ India pivoted away from manufacturing, toward services, which came to form the backbone of its tech economy. Manufacturing as a share of value-added to India's overall GDP sat at just 14 percent in 2020, compared to 48 percent for India's services sectors.¹⁶⁸ Technology services played a significant role as India's information and communications technology exports made up about 50 percent of its services exports.¹⁶⁹ But despite this specialization, Sino-Indian trade grew more imbalanced.

As India's trade deficit ballooned, India grew more dependent on Chinese technology hardware, importing roughly 90 percent of its semiconductors, 75 percent of its computers, and 60 percent of its integrated circuits from China in 2020.¹⁷⁰ But this tech dependence was not mutual: India's information technology and software development services have never enjoyed high market penetration in China.¹⁷¹ As India grew increasingly dependent on China, China relied on India for relatively small amounts of commodities and basic goods.¹⁷²

This imbalance was a source of frequent frustration for Indian policymakers. Throughout this period, India pursued several protectionist policies, often targeting China. During the 2000s India maintained higher barriers to market entry for foreign companies and stricter FDI rules than did Southeast Asian nations and China. In 2016, India introduced tariffs on imported steel from China, Japan, and South Korea.¹⁷³ And between 2000 and 2020, India initiated 104 separate anti-dumping allegations against China in the WTO, accusing China of overproducing goods domestically to sell at a below-market value in India and gain market share.¹⁷⁴ One study noted that no other country was targeted so often by a trading partner as China was by India.¹⁷⁵ In 2014, the newly elected Narendra Modi administration launched an ambitious agenda to increase manufacturing through its Make in India program. Despite significant subsidies, tax cuts for businesses, and bureaucratic reforms to increase navigability for industry, most analyses conclude the initiative has not shown significant effect.¹⁷⁶

Although these policies were particularly concerned with India's trade deficit with China, they were also largely consistent with India's treatment of other nations and appeared more motivated by protectionist philosophies than by unique security concerns about China.¹⁷⁷

2020-2024: Accelerated Decoupling

Since 2020, India's approach to technological engagement with China has become increasingly restrictive and is driven primarily by security dynamics rather than economic considerations.¹⁷⁸ This shift was motivated by two distinct concerns.

First, during the summer of 2020, long-standing border tensions worsened along India's northern border in the Ladakh region and altercations between Chinese and Indian forces led to the death of at least twenty Indian soldiers.¹⁷⁹ In addition to sparking national outrage

in India, this event catalyzed movements toward decoupling. Just days after the clash, the Indian government banned dozens of Chinese apps, cracking down on the market penetration of Chinese technologies.

Second, China's handling of the pandemic and weakening of Indian supply chains, coupled with India's nationalistic desire to increase domestic production, led to the creation of government funding schemes called Production Linked Incentives (PLIs). Through these efforts, India also sought to mobilize investment in its domestic manufacturing capacity and to capitalize on growing global skepticism about overreliance on Chinese supply chains and diversification efforts.

Limiting China's Market Access

Since 2020, India has sought to curtail China's reach into Indian consumer markets and dominance in key technologies. First by revising investment policies, later by banning certain apps, and last by eliminating the use of Huawei equipment in telecommunications networks, India has undertaken a concerted effort to decouple sensitive domestic markets from China.

In April 2020 India enacted new inbound investment controls designed to “curb opportunistic takeovers/acquisitions of Indian companies.”¹⁸⁰ The regulations prohibited investment from countries bordering India, a veiled attempt to limit Chinese investment in India. The new rules also prohibited investment from beneficial owners in neighboring countries, which could be used to further limit Chinese investors' market access.¹⁸¹ Prior to this rule, Indian investment regulations were rather liberal, requiring government approval only in certain sectors, like atomic energy, or for high levels of ownership.¹⁸²

Following the May 2020 Ladakh border clash, India banned fifty-nine Chinese apps, including TikTok and WeChat, saying that the apps were “engaged in activities . . . prejudicial to sovereignty and integrity of India.”¹⁸³ India also banned the popular UC Browser, developed by Alibaba, which at one point captured a 60 percent share of India's browser market.¹⁸⁴ Although the bans were initially marketed as temporary measures in the wake of the border clash, India extended them indefinitely in 2021.¹⁸⁵ App bans continued over the next several months, and by February 2022 India had banned a total of 321 Chinese apps.¹⁸⁶

These actions may have been a motivating factor for the United States to consider similar restrictions on Chinese apps. In 2020, Trump issued an executive order calling for an analysis of the security threats posed by TikTok. The order noted the precedent established by India in banning the app and suggested the United States may want to follow suit.¹⁸⁷ This is one of the few examples of an outside nation influencing the decoupling approach of the United States.

Alongside these actions, India joined with U.S. initiatives to prevent the use of Huawei in its domestic networks. In 2019, India invited telecoms providers, including Huawei and ZTE, to participate in 5G “trials.”¹⁸⁸ However, in 2021, India announced that only Nokia, Ericsson, Samsung, and its own public sector Centre for Development of Telematics would be allowed to participate in a further round of trials.¹⁸⁹ Later that year, the Indian government instructed telecommunications providers to source equipment only from companies that had been deemed “trusted sources,” effectively banning Huawei from use in 5G networks.¹⁹⁰

But despite these restrictions, India remains limited in the actions it can take to limit the penetration of Chinese technologies without disproportionately harming itself. India’s reliance on China has changed little since 2020, and India remains almost entirely dependent on China for advanced technologies such as semiconductor chips and integrated circuits, and for supply chain inputs like rare earth metals.¹⁹¹ Attempts to regulate these items and similar products have been largely unsuccessful. In August 2023, India restricted imports of computers and required import licenses for all computers, hoping to incentivize an increase in domestic production.¹⁹² The controls faced immediate backlash from the U.S. Trade Representative, who noted the restrictions would impact U.S. companies like Dell and Apple.¹⁹³ The Indian business community had its own concerns that it would no longer be able to purchase computers from China, which at the time supplied about 75 percent of India’s computer imports.¹⁹⁴ Following the backlash, the Indian government quickly rescinded the regulation, noting that officials would closely monitor inflows without restricting imports.¹⁹⁵

Production-Linked Incentives

In response to growing concerns about dependence on China and a desire to improve domestic manufacturing abilities, the Modi government launched the PLI scheme in 2020 to fund investment in domestic manufacturing. The plan augments investment by providing a subsidy of 6 percent of the value of additional sales for companies manufacturing certain products in India.¹⁹⁶

The PLI for mobile phones has received significant attention since it began in 2020. Xiaomi, a Chinese handset maker and the largest seller of smartphones in India, partnered with Taiwan’s Foxconn to begin producing in India in 2015. After the PLI, Xiaomi increased production in India.¹⁹⁷ Now, Xiaomi says that 99 percent of its smartphones are assembled in India.¹⁹⁸ Similar developments occurred for other smartphone companies.

The government claimed the scheme was a success, and the Indian Minister of Electronics and Information Technology announced in 2023 that 99 percent of all smartphones sold in India were made in India.¹⁹⁹ However, former Reserve Bank governor Raghuram Rajan has argued that these claims are misleading, because India is involved almost exclusively in final assembly of handsets while component sourcing and early manufacturing occur elsewhere.²⁰⁰

As India's production and exports of smartphones increased after 2020, so too did its imports of smartphone components like semiconductors, displays, cameras, and batteries.²⁰¹ Rajan argues that, rather than becoming independent, India's trade deficit with China and reliance on Chinese tech goods increased because of the PLI.²⁰² A PwC report estimated that assembly accounts for just 2 percent of value addition in the manufacturing process, suggesting that the 6 percent subsidy paid for companies to produce in India costs more than the value added to the Indian economy.²⁰³

The PLI for mobile phone manufacturing also attracted Apple. In 2021, Apple produced only 1 percent of iPhones in India; that figure climbed to around 7 percent in 2023, and a JP Morgan analysis suggested the number will be close to 25 percent of global iPhone production by 2025.²⁰⁴ Some projections anticipate that Apple will produce \$12 billion worth of iPhones in India by the end of 2024.²⁰⁵ Here too, production in India is concentrated in assembly, and while Apple may assemble \$12 billion worth of iPhones in India, assembly only accounts for about 3–6 percent of final value.²⁰⁶ For now at least, India is likely subsidizing production at a value greater than the value added to the Indian economy.²⁰⁷ However, operating at a net loss in the short term could yield long-term gains for India, and increasing output to 25 percent of global iPhones in just five years is an impressive feat. When the manufacturing subsidies expire in 2026, India could find itself with a developed assembly infrastructure that could support growth in other areas of the supply chain.²⁰⁸ Apple is seeking local Indian factories to produce batteries for new iPhone models and hopes to expand components sourcing to further diversify from China.²⁰⁹ In the meantime, Apple supply chains remain heavily dependent on China for components sourcing and assembly.

India's plan to begin with assembling iPhones and move down the supply chain mirrors China's development. In 2010, China imported components from Japan and South Korea and only assembled iPhones, accounting for about 4 percent of the final value. But by 2019, China had expanded its production of components and accounted for 25 percent of the iPhone's manufacturing value.²¹⁰ If India is able to chart a similar course, then it could perhaps serve as a viable alternative to Chinese production in the future, but such a one-to-one comparison may not be grounded. India faces several structural impediments to rapid industrial development, including a complex FDI regulatory framework, a shortage of skilled factory labor, and relatively underdeveloped infrastructure.²¹¹ All these things can be remediated, but such projects will probably be addressed in the long run rather than in the immediate future.

In 2021, the Indian government introduced a similar scheme amounting to around \$10 billion in subsidies to fund semiconductor development.²¹² In 2024, the government used the majority of that funding to subsidize a partnership between the Indian firm Tata Electronics and the Taiwan company Powerchip Semiconductor Manufacturing Corporation (PSMC) to build a semiconductor fabrication facility in Gujarat.²¹³ But subsidization does not guarantee India can build a strong end-to-end semiconductor supply chain.²¹⁴ India also attempted to incentivize domestic semiconductor manufacturing in 2007 and in 2013, but both incentive plans were largely unsuccessful because the business environment was

deemed too difficult to navigate, and subsidies were insufficient incentives. One researcher, Konark Bhandari, argues that for the new subsidy scheme to be effective, India will need to make significant strides to improve the ease of navigation of its business regulations, build a supplier ecosystem, and cultivate manufacturing talent.²¹⁵

2024-2030: The Future of India's Decoupling Trajectory

India simultaneously finds itself increasingly dependent on Chinese imports and desiring to diversify supply for the sake of economic security and domestic industry. Beyond reducing reliance on China, India seeks to take advantage of the current geoeconomic moment and capture manufacturing moving away from China. These goals are often in tension. India will have difficulty becoming a manufacturing power without remaining deeply connected to China for supply chain inputs, manufacturing expertise, and electronic goods. As India seeks to achieve both goals, several factors will impact its technological relationship with China.

Supply Chain Substitution

While India's production of some tech goods has increased, so too has its reliance on China for electronic imports and supply chain inputs.²¹⁶ India might be proficient in assembling goods, but it has a long way to travel up the manufacturing value chain before becoming a powerful player at higher-value levels of manufacturing. Consequently, it is unlikely that India will be able to provide an alternative to Chinese supply chains in the near future.²¹⁷ However, several factors might accelerate India's advancement as a manufacturing power and enable it to capitalize on the global economic restructuring currently underway.

First, India's labor force participation rate among female workers is very low in comparison to neighboring nations and those of similar economic development.²¹⁸ Low labor force participation among women leads to a higher cost of labor, which is one possible reason for why India has struggled to capture a larger share of manufacturing supply chains.²¹⁹ This shortage of labor is especially prevalent in the manufacturing sector.²²⁰ If Indian policymakers are able to incentivize a higher labor force participation rate for women, then an expanded labor market could help lower manufacturing costs and support India's industrial advancement.

Second, bureaucratic and regulatory reform could enhance India's ease of navigability for foreign enterprises, which would bolster industrial expansion into India. Some level of regulatory reform is important as India will have to compete with other nations for portions of China's manufacturing. A report to the Indian Parliament written by the Indian Committee on Commerce noted that India had not taken full advantage of international market movements toward a China Plus One production chain (where firms seek to limit dependence on China by pairing production in China with production in another country,

too).²²¹ The report stated that Vietnam, Thailand, and Malaysia had captured a larger share of production because of their cheap labor, lower corporate taxes, and willingness to sign free trade agreements.²²² India, the report reasoned, needs to revise taxing practices and pursue trade agreements with investing countries to attract manufacturing diverted from China. Such reforms could make India the preferred destination for supply chain relocation.

Border Tensions

India's decoupling trajectory is also shaped by security concerns. The ongoing border tensions between India and China are at constant risk of escalation. Following the 2020 clash, India chose to ban hundreds of Chinese apps from Indian markets. India might consider similar actions in the event of future altercations. Foreign Minister S. Jaishankar frequently reiterates the need to reduce reliance on China in response to border provocations, but if further armed clashes do occur, it is not immediately clear which economic levers India might pull for retaliation and self-protection.²²³ India has already cut many of the ties to China that it can afford to cut without significant economic cost.

Although less likely, the opposite could also occur. Indian Defense Minister Rajnath Singh recently stated that border discussions had been “progressive and satisfactory.”²²⁴ Cooling Sino-Indian tensions along the border could foster greater economic cooperation, or at least discourage further fragmentation.²²⁵

Conclusion

Navigating the evolution of global economic and technological engagement with China is a deeply complex policy challenge. This paper has sought to expand the discourse surrounding policy priorities and economic objectives for global economic restructuring. The United States remains an extraordinarily active player in the decoupling conversation, but its perspective is far from the only relevant viewpoint. Policymakers would do well to recognize the diversity of thought on China that exists even among close U.S. partners.

One of the most significant conclusions drawn in this paper is that U.S. partners generally do not share Washington's implicit goal of broadly limiting China's progress in advanced technologies. Many in Washington are probably intuitively aware of this, but the dominating sentiment is that U.S. partners are gradually waking up to the risks posed by China and will eventually come around fully to the U.S. way of thinking. This paper complicates that assumption. Some nations, like Japan and India, have security concerns that predate those of the United States, yet these same nations do not currently show the willingness and capability to proactively kneecap China. Instead, each of the nations studied has unique

considerations that inform its approach to China. Although each is broadly less restrictive toward China than the United States, U.S. policymakers would do well to recognize this as the result of differing security assessments and economic objectives, not naivete.

The implications of this extend well beyond the three nations studied in this report. Germany, Japan, and India can offer generalizable insights into how other nations might behave by serving as loose archetypes for groups of similar-minded countries.

Germany's high-powered industrial economy and relative geographic distance from China mean the Sino-German relationship is predominantly shaped by economic and trade concerns. Germany has no immediate physical security threats stemming from China and does not desire to choke off China's access to advanced technologies. On the other hand, Germany also incorporates a human rights focus into its foreign policy and frequently references Chinese mistreatment of minorities in the Xinjiang region—common ground with China hawks in Washington and a potential basis for further decoupling in the future.²²⁶ While not mirror images, Canada, France, and the United Kingdom largely share these characteristics, which inform their relationships with China.

Japan, unlike Germany, does have immediate physical security concerns that stem from its geographic proximity to China. Japan's political relationship with China borders on hostility even as economic exchange remains high, although increasingly competitive. China has attempted to leverage economic interdependence in the past to extract political concessions, which makes Japan highly wary of continued dependence on China. Australia, South Korea, and Taiwan all have similar physical security and economic coercion concerns, and Japan's trajectory may help inform policymakers' understandings of these nations as well.

India attempts to balance concerns about overreliance on China with the desire to develop manufacturing potential to capitalize on supply chain restructuring. For India, decoupling is more of an economic opportunity than an unfortunate reality. India's balancing act parallels the considerations of nations like Mexico, Thailand, and Vietnam, which each face trade-offs between capturing increased manufacturing share and the potential costs of close association with China.

Last, this paper makes clear that bilateral relationships with China, not U.S. influence, drive the behavior of all three countries. While U.S. lobbying may have some effect, U.S. policymakers should recognize the larger factors animating these countries' strategic decoupling trajectories. Expecting partners to fall in line with U.S. China policy is not realistic. Instead, policymakers should do a better job of understanding the concerns and objectives of other states. And perhaps in investigating these goals, U.S. leaders might reflect inward on America's own priorities for decoupling, which are still in desperate need of refinement.

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Notes

- 1 “Executive Order on Addressing the Threat Posed by TikTok,” White House, August 6, 2020, <https://trumpwhitehouse.archives.gov/presidential-actions/executive-order-addressing-threat-posed-tiktok>.
- 2 “Second Report on Member States’ Progress in Implementing the EU Toolbox on 5G Cybersecurity,” European Commission, June 15, 2023, <https://digital-strategy.ec.europa.eu/en/library/second-report-member-states-progress-implementing-eu-toolbox-5g-cybersecurity>.
- 3 The phrase “restrictive policies” is used throughout this piece to refer to rules and regulations that use state power to forcefully limit technological integration with China. Export controls, tariffs, investment limits, visa rules, and data flow regulations are all examples of restrictive policies.
- 4 For an extensive analysis of U.S. decoupling policies, objectives, and strategies, see Jon Bateman, “U.S.-China Technological Decoupling: A Strategy and Policy Framework,” Carnegie Endowment for International Peace, April 25, 2022, <https://carnegieendowment.org/research/2022/04/us-china-technological-decoupling-a-strategy-and-policy-framework?lang=en¢er=global>.
- 5 Industrial policy has been recognized as an important component of countries’ movements toward technological decoupling from China. State intervention in industry through central planning, subsidies, tax credits, tariffs against competitors, preferential treatment, and other such incentives are seen as *key offensive* policies that help countries to metaphorically run faster in technological competition with China. In a decoupling context, industrial policy can be an effective toolkit for creating domestic capabilities to wean a country off of dependence on China. For example, U.S. subsidies toward semiconductor manufacturers through the 2022 CHIPS and Science Act are designed to serve the twofold purpose of bolstering a floundering domestic chip manufacturing industry while securing supply chains and reducing reliance on China for imported semiconductors, especially lagging edge chips.
- 6 For example, Germany’s constitution caps the maximum allowable deficit for a given year at 3.5 percent of GDP for that year. This debt brake is a significant limit on federal spending and helps explain some of the discrepancy between German industrial subsidies relative to recent subsidies seen in other developed economies including France, Japan, and the United States.
- 7 “Germany Product Exports to China: Value of products exported by Germany to China along with their export share, world growth in percentage, country growth in percentage and revealed comparative advantage for the years 2001 and 2015,” World Integrated Trade Solution, accessed December 9, 2024, <https://wits.worldbank.org/CountryProfile/en/Country/DEU/Year/2015/TradeFlow/Export/Partner/CHN/Product/All-Groups>.

- 8 Jürgen Matthes, “Mutual Dependence in Trade Between China, the EU and Germany,” German Economic Institute, June 13, 2022, <https://www.iwkoeln.de/en/studies/juergen-matthes-mutual-dependence-in-trade-between-china-the-eu-and-germany.html>; Noah Barkin and Gregor Sebastian, “Tipping Point? Germany and China in an Era of Zero-Sum Competition,” Rhodium Group, February 15, 2024, <https://rhg.com/research/tipping-point-germany-and-china-in-an-era-of-zero-sum-competition/>; and Katrin Bennhold, “Did Germany Learn From Its Russia Trouble? The Test May Come in China,” *New York Times*, October 30, 2022, <https://www.nytimes.com/2022/10/30/world/europe/germany-russia-china.html>.
- 9 Keith Bradsher and Melissa Eddy, “China Divides Europe in Fight Against Tariffs,” *New York Times*, May 28, 2013, <https://www.nytimes.com/2013/05/29/business/global/china-divides-eu-in-fight-against-tariffs.html>; and “Agreement to Extend Bilateral Relations,” Bundesregierung, March 28, 2014, <https://www.bundesregierung.de/breg-en/service/archive/archive/agreement-to-extend-bilateral-relations-460214>.
- 10 Erik Brattberg, “Merkel’s Mixed Legacy on China,” Carnegie Endowment for International Peace, September 30, 2021, <https://carnegieendowment.org/2021/09/30/merkel-s-mixed-legacy-on-china-pub-85471>.
- 11 Frederick Kliem, “The German Elections and Angela Merkel’s China Legacy,” *The Diplomat*, October 13, 2021, <https://thediplomat.com/2021/10/the-german-elections-and-angela-merkels-china-legacy/>.
- 12 Ariane Reimers, “Germany’s Recent China Policy,” Mercator Institute for China Studies, October 8, 2021, <https://merics.org/en/comment/germanys-recent-china-policy>.
- 13 Brattberg, “Merkel’s Mixed Legacy on China.”
- 14 “Germany-China Trade,” Organization of Economic Complexity, <https://oec.world/en/profile/bilateral-country/deu/partner/chn?subnationalTimeSelector=timeYear&dynamicBilateralTradeSelector=year2022>.
- 15 Gregor Sebastian, “The Bumpy Road Ahead in China for Germany’s Carmakers,” Mercator Institute for China Studies, October 27, 2022, https://merics.org/sites/default/files/2022-10/MERICs_China_Monitor_No79-Automotive-RD-in-China_EN_0.pdf.
- 16 “Factbox: China Becomes the World’s No.1 Auto Market,” *Reuters*, January 8, 2010, <https://www.reuters.com/article/us-auto-china-idUKTRE60722O20100108/>.
- 17 Patrick Schrott, *Strategies of German Car Companies in China* (Anchor Academic Publishing, 2013).
- 18 Agatha Kratz, Noah Barkin, and Lauren Dudley, “The Chosen Few: A Fresh Look at European FDI in China,” Rhodium Group, September 14, 2022, <https://rhg.com/research/the-chosen-few/>.
- 19 “China: Partner and Competitor in the Automotive Industry,” Verband der Automobilindustrie, effective August 21, 2024, <https://www.vda.de/en/news/articles/china-Partner-and-competitor-in-the-automotive-industry>.
- 20 “China, Germany in Auto, Aircraft Deals as Merkel Visits,” *Economic Times of India*, July 8, 2014, <https://auto.economicstimes.indiatimes.com/news/industry/china-germany-in-auto-aircraft-deals-as-merkel-visits/37992946>; and Gwyn Topham, “VW Chief to Accompany Angela Merkel on Trade Visit to China,” *The Guardian*, October 27, 2015, <https://www.theguardian.com/world/2015/oct/27/volkswagen-vw-angela-merkel-trade-mission-exports-china>.
- 21 “China is ‘Second Home’ for Mercedes-Benz,” *Global Times*, April 28, 2016, <https://www.globaltimes.cn/content/980678.shtml>.
- 22 Eric Geller, “Trump Signs Order Setting Stage to Ban Huawei From U.S.,” May 15, 2019, <https://www.politico.com/story/2019/05/15/trump-ban-huawei-us-1042046>.
- 23 “‘No Evidence’ of Huawei Spying, Says German IT Watchdog,” *Security Week*, December 17, 2018, <https://www.securityweek.com/no-evidence-huawei-spying-says-german-it-watchdog>. For technical specifics on the German information technology findings, see “Certification Report for Huawei NE40E Series Software,” German Federal Office for Information Security, October 26, 2018, https://www.bsi.bund.de/SharedDocs/Downloads/DE/BSI/Zertifizierung/Reporte/Reporte1000/1053a_pdf.pdf?__blob=publicationFile&v=1.
- 24 Moritz Koch, Dietmar Neuerer, and Stepan Sheuer, “Merkel Opens 5G Network for Huawei,” *Handelsblatt*, October 14, 2019, <https://www.handelsblatt.com/politik/deutschland/netzausbau-merkel-oeffnet-5g-netz-fuer-huawei/25107766.html?ticket=ST-42815419-Fr1151G2uMObk7BLSXEB-ap1>; and Zak Doffman, “Trump’s Huawei Ban Rejected by New Ruling in Germany,” *Forbes*, October 15, 2019, <https://www.forbes.com/sites/zakdoeffman/2019/10/15/trumps-huawei-ban-rejected-by-surprise-new-report/?sh=652c470423b6>.

- 25 Laurens Cerulus and Sarah Wheaton, “How Washington Chased Huawei Out of Europe,” *Politico*, November 22, 2023, <https://www.politico.eu/article/us-china-huawei-europe-market/>; Mathieu Rosemain and Gwenaelle Barzic, “Exclusive: French Limits on Huawei 5G Equipment Amount to de facto Ban by 2028,” *Reuters*, July 22, 2020, <https://www.reuters.com/article/us-france-huawei-5g-security-exclusive/exclusive-french-limits-on-huawei-5g-equipment-amount-to-de-facto-ban-by-2028-idUSKCN24N26R/>; and Juan Pedro Tomas, “BT Said the Telco Was ‘Well on the Way’ to its Target of Removing Huawei From its Mobile Core by the End of 2023,” *RCR Wireless News*, <https://www.rcrwireless.com/20230925/5g/uk-telco-bt-says-huawei-ban-cost-firm-612-million-report#:~:text=The%20ban%20had%20been%20implemented,by%20the%20end%20of%202027.>
- 26 Bojan Pancevski and Sara Germano, “Drop Huawei or See Intelligence Sharing Pared Back, U.S. Tells Germany,” *Wall Street Journal*, March 11, 2019, <https://www.wsj.com/articles/drop-huawei-or-see-intelligence-sharing-pared-back-u-s-tells-germany-11552314827>.
- 27 “U.S. Warns Germany over Huawei Contracts,” *DW*, March 11, 2019, <https://www.dw.com/en/us-warns-germany-over-use-of-untrusted-vendors-in-5g-network/a-47863162>; “NSA Tapped German Chancellery for Decades, WikiLeaks Claims,” *The Guardian*, July 8, 2015, <https://www.theguardian.com/us-news/2015/jul/08/nsa-tapped-german-chancellery-decades-wikileaks-claims-merkel>; and “The Future of Huawei in Europe,” *China File*, October 18, 2019, <https://www.chinafile.com/conversation/future-of-huawei-europe>.
- 28 John Sakellariadis and Lennart Pfahler, “Transatlantic Blame Game: Trump, Merkel, Biden, and the Danger of Germany’s Dependence on Huawei,” *Politico*, October 15, 2023, <https://www.politico.com/news/2023/10/15/germany-huawei-relations-00119748>.
- 29 “Huawei Sees a \$10 Billion Hit to Mobile Unit From U.S. Curbs,” *Bloomberg Law*, August 23, 2019, <https://news.bloomberglaw.com/international-trade/huawei-sees-a-10-billion-hit-to-mobile-unit-from-u-s-curbs-1>; Dashveenjit Kaur, “What Three Years of U.S. Sanctions Did to Huawei,” *Techwire Asia*, March 2023, <https://techwireasia.com/03/2023/what-three-years-of-us-sanctions-did-to-huawei/>; and Dan Stumpf, “Huawei Sells Off Honor Phone Business as U.S. Sanctions Bite,” *Wall Street Journal*, November 17, 2022, <https://www.wsj.com/articles/huawei-sells-off-honor-phone-business-as-u-s-sanctions-bite-11605609850>.
- 30 “The Market for 5G RAN in Europe: Share of Chinese and Non-Chinese Vendors in 31 European Countries,” *Strand Consult*, 2023, <https://strandconsult.dk/the-market-for-5g-ran-in-europe-share-of-chinese-and-non-chinese-vendors-in-31-european-countries/>.
- 31 Sarah Marsh, “Germany Ups Reliance on Huawei for 5G Despite Security Fears – Survey,” *Reuters*, December 16, 2022, <https://www.reuters.com/technology/germany-ups-reliance-huawei-5g-despite-security-fears-survey-2022-12-16/>; “The Market for 5G RAN in Europe: Share of Chinese and Non-Chinese Vendors in 31 European Countries,” *Strand Consult*, 2022, <https://strandconsult.dk/the-market-for-5g-ran-in-europe-share-of-chinese-and-non-chinese-vendors-in-31-european-countries/>.
- 32 Amie Tsang, “Midea of China Moves a Step Closer to Takeover of Kuka of Germany,” *New York Times*, July 4, 2016, <https://www.nytimes.com/2016/07/05/business/dealbook/germany-china-midea-kuka-technology-robotics.html>.
- 33 Cynthia Wrage and Jacob Kullik, “After Kuka – Germany’s Lessons Learned from Chinese Takeovers,” *China Observers*, July 21, 2022, <https://chinaobservers.eu/after-kuka-germanys-lessons-learned-from-chinese-takeovers/>.
- 34 “‘Made in China 2025’: China’s Answer to Industry 4.0,” *European Union Chamber of Commerce in China*, June 22, 2016, <https://www.europeanchamber.com.cn/en/upcoming-events/11057/ Made in China 2025 China s answer to Industry 4.0>; and Jost Wübbcke, Mirjam Meissner, Max J. Zenglein, Jacqueline Ives, and Björn Conrad, “Made in China 2025: The Making of a High-Tech Superpower and Consequences for Industrial Countries,” *Mercator Institute for China Studies*, August 12, 2016, <https://merics.org/en/report/made-china-2025>.
- 35 “What Is The Plattform Industrie 4.0?,” *Federal Ministry for Economic Affairs and Climate Action*, accessed August 21, 2024, <https://www.plattform-i40.de/II/Navigation/EN/Home/home.html>.
- 36 Cora Jungbluth, “Is China Systematically Buying Up Key Technologies?,” *Bertelsmann Stiftung*, 2018, https://www.bertelsmann-stiftung.de/fileadmin/files/BSt/Publikationen/GrauePublikationen/MT_Is_China_Systematically_Buying_Up_Key_Technologies.pdf; and “Industrial Policy in Changed

- Times,” German Federal Ministry for Economic Affairs and Climate Action, October 2023, https://www.bmwk.de/Redaktion/EN/Publikationen/Industry/industrial-policy-in-changing-times.pdf?__blob=publicationFile&v=5.
- 37 Wübbecke, Meissner, Zenglein, Ives, and Conrad, “Made in China 2025: The Making of a High-Tech Superpower and Consequences for Industrial Countries.”
- 38 “Aixtron Sale Stopped,” *DW*, October 24, 2016, <https://www.dw.com/en/germany-blocks-aixtron-sale-to-chinas-fgc/a-36133472>; <https://www.ft.com/content/f1b3e52e-99b0-11e6-8f9b-70e3cabccfae>.
- 39 “U.S. Warned Berlin on China-Aixtron Deal: Handelsblatt,” *Reuters*, October 26, 2016, <https://www.reuters.com/article/us-aixtron-m-a-fujian-usa-idUSKCN12Q1A0/>.
- 40 Maria Sheahan, “China’s Fujian Drops Aixtron Bid After Obama Blocks Deal,” *Reuters*, December 8, 2016, <https://www.reuters.com/article/us-aixtron-m-a-fujian/chinas-fujian-drops-aixtron-bid-after-obama-blocks-deal-idUSKBN13X16H/>.
- 41 Sheahan, “China’s Fujian Drops Aixtron Bid After Obama Blocks Deal.”
- 42 “Germany Expands the Scope of its FDI Screening Regime,” *Investment Policy Monitor*, December 19, 2018, <https://investmentpolicy.unctad.org/investment-policy-monitor/measures/3337/germany-expands-the-scope-of-its-fdi-screening-regime>.
- 43 “Baerbock Strives for ‘Dialogue and Toughness’ Toward China,” *Table Briefings*, December 1, 2021, <https://table.media/en/china/feature/baerbock-seeks-dialogue-and-toughness-with-china>. According to Amanda Sloat of the Brookings Institution, the Greens rejected Merkel’s China approach, accusing Merkel of what Sloat calls “downplaying human rights concerns by pandering to German industry.” Domestically, the Green party’s policy is often driven by its opposition to the far-right Alternative for Germany (AfD) party. The traditional left/right divide in German politics between the Christian Democratic Union and Social Democratic Party is being reshaped as a liberal/illiberal divide with the Greens and the AfD at either end of the spectrum. The Green party’s rhetoric and policy toward authoritarian regimes like Russia and China are together a natural extension of its efforts to counter the AfD’s illiberal domestic movements. See Amanda Sloat, “Germany’s New Centrists? The Evolution, Political Prospects, and Foreign Policy of Germany’s Green Party,” Brookings Institution, October 2020, https://www.brookings.edu/wp-content/uploads/2020/10/FP_20201020_germanys_new_centrists_sloat.pdf.pdf.
- 44 Noah Barkin, “Germany Has a New Consensus on China,” *Foreign Policy*, July 21, 2023, <https://foreignpolicy.com/2023/07/21/germany-scholz-china-strategy/>.
- 45 Barkin and Sebastian, “Tipping Point? Germany and China in an Era of Zero-Sum Competition.”
- 46 Barkin and Sebastian, “Tipping Point? Germany and China in an Era of Zero-Sum Competition.”
- 47 Laurenz Gehrke, “Mistake’ Not To Object To Nord Stream 2, Says German President,” *Politico*, April 4, 2022, <https://www.politico.eu/article/german-president-admits-having-been-mistaken-on-nord-stream-2>.
- 48 Rym Momtaz, “Taking The Pulse: Is China Becoming Germany’s New Dependency?,” *Carnegie Endowment for International Peace*, October 10, 2024, <https://carnegieendowment.org/europe/strategic-europe/2024/10/taking-the-pulse-is-china-becoming-germanys-new-dependency?lang=en>.
- 49 “German Automakers Fight to Defend Their Turf From Chinese Rivals,” *Reuters*, April 19, 2023, <https://www.reuters.com/business/autos-transportation/german-automakers-fight-defend-their-turf-chinese-rivals-2023-04-19/>; and Patrick Freiwah, “Volkswagen and BMW React to Electro-Flops in China – and Take Drastic Steps,” *HNA*, April 25, 2023, <https://www.hna.de/wirtschaft/vw-bmw-elektroauto-absatz-china-preisnachlaesse-news-verkaufszahlen-stueckzahlen-news-92152030.html>.
- 50 Mark J. Greeven, “China’s NEV Sector: Domestic Brands Lead the Charge,” *IMD Business*, July 18, 2024, <https://www.imd.org/ibyimd/asian-hub/chinas-nev-sector-domestic-brands-lead-the-charge-in-innovation-and-market-share/#:-:text=In%202020%2C%20Chinese%20domestic%20brands,2023%2C%20it%20reached%2051.9%25>.
- 51 Juergen Matthes and Thomas Puls, “Is the Derisking Beginning?,” *German Economic Institute*, September 15, 2023, <https://www.iwkoeln.de/en/studies/juergen-matthes-thomas-puls-is-the-derisking-beginning.html>.

- 52 Willian Alan Reinsch and Jack Whitney, “Unpacking the European Union’s Provisional Tariff Hikes on Chinese Electric Vehicles,” Center for Strategic and International Studies, June 21, 2024, <https://www.csis.org/analysis/unpacking-european-unions-provisional-tariff-hikes-chinese-electric-vehicles>.
- 53 Camille Gijs, Jordyn Dahl, Antonia Zimmermann, Hans von der Burchard, and Jakob Hanke Vela, “Germany Launches 11th-Hour Bid to Avert Trade War with China,” *Politico*, June 11, 2024, <https://www.politico.eu/article/france-germany-conflict-eu-chinese-ev-electric-vehicle-duties/>; and Joshua Posaner and Hans Von Der Burchard, “Germany’s Scholz Warns Against Protectionism in China Electric Car Probe,” *Politico*, September 28, 2023, <https://www.politico.eu/article/germany-chancellor-olaf-scholz-global-competition-china-electric-cars/>.
- 54 “German Car Industry Urges EU to Drop Tariffs on China-Made Cars,” *Reuters*, July 3, 2024, <https://www.reuters.com/business/autos-transportation/german-car-industry-urges-eu-drop-tariffs-china-made-cars-2024-07-03/>; and Della Johnson and Bill Echikson, “Auto Angst: German Carmakers Struggle with a China Crackdown,” Center for European Policy Analysis, November 9, 2023, <https://cepa.org/article/auto-angst-german-carmakers-struggle-with-a-china-crackdown/>.
- 55 Arendse Huld, “China-Germany Bilateral Direct Investment: Trends and Outlook,” China Briefing, February 5, 2024, <https://www.china-briefing.com/news/germany-china-investment-trends-and-outlook/>.
- 56 Jacky Wong, “Volkswagen’s EV Gambit in China Makes Sense,” *Wall Street Journal*, July 27, 2023, https://www.wsj.com/articles/volkswagens-ev-gambit-in-china-makes-sense-acc68f54?mod=article_inline.
- 57 Jennifer Mossalgue, “Thousands to Lose Their Jobs as VW Slashes \$11 Billion in Costs,” *Electrek*, December 7, 2023, <https://electrek.co/2023/12/07/thousands-to-lose-their-jobs-as-vw-slashes-11-billion-in-costs/>.
- 58 “Bosch to Open Billion-Dollar Research and Development Centre in Suzhou, China,” *Reuters*, January 12, 2023, <https://www.reuters.com/business/autos-transportation/bosch-open-billion-dollar-research-development-centre-suzhou-china-2023-01-12/>.
- 59 “Bosch Cuts More Jobs in the Automotive Business,” *Handelsblatt*, January 23, 2024, <https://www.handelsblatt.com/unternehmen/industrie/autozulieferer-bosch-streicht-weitere-stellen-im-autogeschaef/100009779.html>.
- 60 Sebastian, “The Bumpy Road Ahead in China for Germany’s Carmakers.”
- 61 “Germany Denies VW China Investment Guarantees Over Human Rights Concerns – Spiegel,” *Reuters*, May 27, 2022, <https://www.reuters.com/business/autos-transportation/germany-denies-vw-china-investment-guarantees-over-human-rights-concerns-spiegel-2022-05-27/>; and Stuart Lau, Joshua Posaner, and Hans Von Der Burchard, “What Genocide? Volkswagen’s Morally Expensive Bet on China,” *Politico*, June 20, 2023, <https://politico.eu/article/volkswagen-china-xinjiang-forced-labor-how-to-get-away-with-genocide/>.
- 62 “Fundamentals of the Investment Guarantees,” Investment Guarantees of the Federal Republic of Germany, accessed August 21, 2024, <https://www.investitions Garantien.de/en/main-navigation/basics-investment-guarantees/fundamentals-of-the-investment-guarantees>.
- 63 “2023 Report on Export Credit and Investment Guarantees,” German Federal Ministry for Economic Affairs and Climate Action, January 31, 2024, <https://www.bmwk.de/Redaktion/EN/Pressemitteilung/2024/01/20240131-2023-report-on-export-credit-and-investment-guarantees.html>; “Investment Guarantees Annual Report 2022,” German Federal Ministry for Economic Affairs and Climate Action, March 2023, https://investitions Garantien.de/_Resources/Persistent/6/8/b/1/68b131103c0552ac8e297cba3e99a5bf5d73bf33/investment-guarantees-annual-report-2022.pdf; and Andreas Rinke, “Exclusive: German Guarantees for China Investments Plummet,” *Reuters*, August 23, 2023, <https://www.reuters.com/business/german-guarantees-china-investments-plummet-document-2023-08-23/>.
- 64 Sarah Marsh, “Exclusive: German Investment in China Rises to Record High,” *Reuters*, February 14, 2024, <https://www.reuters.com/markets/german-investment-china-rises-new-record-high-2024-02-14/>.
- 65 For more information and a deeper analysis of this dynamic see the following publications. Mathieu Pollet, Peter Wilke, Laurens Cerulus, and Hans Von Der Burchard, “Nordstream Trauma Leads Berlin to Draw Up Fresh Huawei Bans,” *Politico*, September 19, 2023, <https://www.politico.eu/article/germany-draws-up-partial-ban-on-huawei/>; Katrin Bennhold and Erika Solomon, “Did Germany Learn From Its

- Russia Trouble? The Test May Come In China,” *New York Times*, October 30, 2022, <https://www.nytimes.com/2022/10/30/world/europe/germany-russia-china.html>; Judy Dempsey, “Germany’s Continued Illusions About China and Russia,” Carnegie Endowment for International Peace, October 20, 2022, <https://carnegieeurope.eu/strategieurope/88210>; and Liana Fix, “Germany’s China Policy: Has It Learned From Its Dependence On Russia?,” Council on Foreign Relations, November 14, 2022, <https://www.cfr.org/in-brief/germanys-china-policy-has-it-learned-its-dependency-russia>.
- 66 Geir Moulson, “German Foreign Minister Urges Caution in China Relationship,” *AP News*, October 18, 2022, <https://apnews.com/article/russia-ukraine-business-china-germany-152ada23c0bded3861d40cd55dd77169>.
- 67 Sarah Marsh, Andreas Rinke, and Hakan Ersen, “German Proposal for Huawei Curbs Triggers Telecom Operator Backlash,” *Reuters*, September 20, 2023, <https://www.reuters.com/business/media-telecom/german-interior-ministry-wants-force-5g-operators-slash-huawei-use-official-2023-09-19/>.
- 68 “Deutsche Telekom: Mooted Timeline on German Huawei Curbs Unrealistic,” *Reuters*, September 20, 2023, <https://www.reuters.com/business/media-telecom/deutsche-telekom-mooted-timeline-german-huawei-curbs-unrealistic-2023-09-20/>.
- 69 Iain Morris, “German Huawei Ban to Cost 2.5 Billion Euros and Take Years, No Thanks to EU,” *Light Reading*, June 15, 2023, <https://www.lightreading.com/security/german-huawei-ban-to-cost-2-5b-and-take-years-no-thanks-to-eu>.
- 70 Andreas Rinke and Miranda Murray, “Germany Blocks Chinese Stake in Two Chipmakers Over Security Concerns,” *Reuters*, November 9, 2022, <https://www.reuters.com/markets/deals/germany-block-chinese-takeover-semiconductor-firm-ers-electronic-handelsblatt-2022-11-09/>.
- 71 Michael Nienaber and Arne Delfs, “Germany Blocks Two Chip Facility Sales to Chinese Investor,” *Bloomberg*, November 9, 2022, <https://www.bloomberg.com/news/articles/2022-11-09/germany-blocks-sale-of-elmos-chip-facility-to-chinese-investor?sref=QmOxnLFz>.
- 72 Guy Chazan, “Germany Reviews Chinese Group’s Acquisition of Port Stake,” *Financial Times*, April 12, 2023, <https://www.ft.com/content/d79ecdfd-28c1-4226-a9ae-282246206481>.
- 73 Arthur Sullivan, “Germany Inks Deal with China’s COSCO on Hamburg Port,” *DW*, May 11, 2023, <https://www.dw.com/en/germany-inks-deal-with-chinas-cosco-on-hamburg-port/a-65586131>.
- 74 Andreas Rinke and Jan Schwartz, “German Go-Ahead for China’s COSCO Stake in Hamburg Port Unleashes Protest,” *Reuters*, October 26, 2022, <https://www.reuters.com/markets/deals/german-cabinet-approves-investment-by-chinas-cosco-hamburg-port-terminal-sources-2022-10-26/>.
- 75 Humeyra Pamuk, “U.S. Cautioned Germany Against a Chinese Controlling Stake in Hamburg Port,” *Reuters*, November 2, 2022, <https://www.reuters.com/markets/us-strongly-suggested-there-be-no-controlling-interest-by-china-hamburg-port-2022-11-02/>.
- 76 Till Steinvorth and Jan-Hendrik Fitzl, “Court Reviews Investment Control,” *Noerr*, January 17, 2024, <https://www.noerr.com/en/insights/competition-outlook-2024-court-reviews-investment-control>.
- 77 Horst Henschen and Tristan Reis, “Berlin Court Clarifies Significant German FDI Issues,” *Covington*, December 1, 2023, <https://www.covcompetition.com/2023/12/berlin-court-clarifies-significant-german-fdi-issues/>.
- 78 A principal concern of some is that the far-right AfD party will gain a strong foothold in the German Bundestag through the 2025 election, substantially disrupting both domestic and foreign policy. If this occurs, it is probable that other German parties will refuse to involve the AfD in a coalition agreement. Since the AfD’s inception in 2013, other German parties have firewalled the AfD through what is called a “cordon sanitaire”—a loose agreement between major parties not to involve the AfD in a governing coalition. If the cordon sanitaire holds, it is unlikely that the AfD will have any major influence over Germany’s China policy. Historically, the AfD has proven a bit of a wild card when it comes to foreign policy. Though the AfD urged Germany to remove China’s status as a developing nation and called for the government to block investment in the Hamburg port in 2022, the party has recently adopted a more pro-China stance. The AfD has decried efforts to reduce reliance on China, saying this will lead to unnecessary price increases, and has denounced Baerbock’s values-centered foreign policy. AfD policy is staunchly anti–United States, and AfD policymakers advocate for diminished ties to Washington; in this regard, the AfD views

- China as a natural counterweight to U.S. influence in Germany. For more information, see: Matthias von Hein, “China Courts Germany’s Far-Right Populist AfD,” *DW*, August 11, 2023, <https://www.dw.com/en/china-courts-germanys-far-right-populist-afd/a-66504263>; Tim Hildenbrandt, “Germany’s Far-Right Pivot to China,” *The Diplomat*, October 6, 2023, <https://thediplomat.com/2023/10/germanys-far-right-pivot-to-china/>; and Courtney Flynn Martino and Chloe Ladd, “Cordoned Off: The Far Right in France and Germany,” Bertelsmann Foundation, December 7, 2023, <https://www.bfna.org/politics-society/cordoned-off-the-far-right-in-france-and-germany-7x3cunq7at/>.
- 79 Barkin and Sebastian, “Tipping Point? Germany and China in an Era of Zero-Sum Competition.”
- 80 Jürgen Matthes, “Competition from China in the EU Market for Germany’s Manufacturing Sector,” SUERF Policy Brief No 775, January, 2024, <https://www.suerf.org/publications/suerf-policy-notes-and-briefs/competition-from-china-in-the-eu-market-for-germanys-manufacturing-sector/>.
- 81 Joshua Posaner and Wilhelmine Preussen, “Why Berlin Will Slam the Brakes on France’s Car War with China,” *Politico*, June 19, 2023, <https://www.politico.eu/article/volkswagen-mercedes-bmw-berlin-will-slam-the-brakes-on-frances-car-war-with-china/>; and Reinsch and Whitney, “Unpacking the European Union’s Provisional Tariff Hikes on Chinese Electric Vehicles.”
- 82 Gijs, Dahl, Zimmermann, von der Burchard, and Hanke Vela, “Germany Launches 11th-hour Bid to Avert Trade War with China.”
- 83 Finbarr Bermingham, “China Considering Car Tariffs to Retaliate Against US and EU Moves, Trade Group Says,” *South China Morning Post*, May 22, 2024, <https://www.scmp.com/news/china/article/3263567/china-considering-car-tariffs-retaliate-against-us-and-eu-moves-trade-group-says?module=inline&pgtype=article>.
- 84 Barkin and Sebastian, “Tipping Point? Germany and China in an Era of Zero-Sum Competition.”
- 85 Iain Morris, “German Huawei Ban to Cost €2.5B and Take Years, No Thanks to EU,” *Light Reading*, June 15, 2023, www.lightreading.com/security/german-huawei-ban-to-cost-2-5b-and-take-years-no-thanks-to-eu/; and Grace Dille, “FCC Chair: ‘Rip and Replace’ Program Faces \$3B Shortfall,” *MeriTalk*, December 1, 2023, <https://www.meritalk.com/articles/fcc-chair-rip-and-replace-program-faces-3b-shortfall/>.
- 86 Andreas Rinke, Victoria Waldersee, and Sarah Marsh, “Insight: German Business Chiefs Clash with Berlin Over China Policies,” *Reuters*, October 13, 2022, <https://www.reuters.com/business/german-business-chiefs-clash-with-berlin-over-china-policies-2022-10-13/>.
- 87 Guy Chazan, “German Coalition Set for Clash Over Curbing Investments in China,” *Financial Times*, May 12, 2023, <https://www.ft.com/content/8aec5c2d-ca67-46b1-80ab-33809f56a2f2>.
- 88 Laura Pitel, “German Minister Proposes Tougher Rules on Chinese Foreign Direct Investment,” *Financial Times*, August 20, 2023, <https://www.ft.com/content/1f37a5f2-0aac-4940-8071-963e967496e4>; Horst Henschen and Tristan Reis, “Berlin Court Clarifies Significant German FDI Issues,” *Covington*, December 1, 2023, <https://www.covcompetition.com/2023/12/berlin-court-clarifies-significant-german-fdi-issues/#:~:text=The%20BMW%20had%20already%20become,The%20VG%20Berlin%20found.>
- 89 “US calls for Netherlands, Germany, South Korea, Japan to Tighten Chip Curbs on China, Drawing Resistance from Allies,” *South China Morning Post*, March 7, 2024, <https://www.scmp.com/tech/tech-war/article/3254458/us-calls-netherlands-germany-south-korea-japan-tighten-chip-curbs-china-drawing-resistance-allies>; and “Germany Plays Down Report on Banning Chip Chemicals to China,” *Reuters*, April 28, 2023, [https://www.reuters.com/world/germany-may-restrict-export-chip-chemicals-china-bloomberg-2023-04-27/#:~:text=April%2027%20\(Reuters\)%20%2D%20Germany,and%20Beijing%20called%20it%20destabilising.](https://www.reuters.com/world/germany-may-restrict-export-chip-chemicals-china-bloomberg-2023-04-27/#:~:text=April%2027%20(Reuters)%20%2D%20Germany,and%20Beijing%20called%20it%20destabilising.)
- 90 “EU’s response to the US Inflation Reduction Act (IRA),” European Parliament, September 2023, [https://www.europarl.europa.eu/RegData/etudes/IDAN/2023/740087/IPOL_IDA\(2023\)740087_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/IDAN/2023/740087/IPOL_IDA(2023)740087_EN.pdf).
- 91 “EU-US Relations After the Inflation Reduction Act, and the Challenges Ahead,” European Parliament, February 2024, [https://www.europarl.europa.eu/RegData/etudes/STUD/2024/759588/EPRS_STU\(2024\)759588_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/STUD/2024/759588/EPRS_STU(2024)759588_EN.pdf).

- 92 Jon Bateman, “U.S.-China Technological “Decoupling: A Strategy and Policy Framework.”]
- 93 “Sanctions List Search: Hangzhou Hikvision Digital Technology,” *U.S. Office of Foreign Assets Control*, accessed November 13, 2024, <https://sanctionssearch.ofac.treas.gov/Details.aspx?id=30946>; David Shepardson and Karen Freifeld, “China’s Huawei, 70 Affiliates Placed on U.S. Trade Blacklist,” *Reuters*, May 16, 2019, <https://www.reuters.com/article/business/china-s-huawei-70-affiliates-placed-on-u-s-trade-blacklist-idUSKCN1SL2VW/>.
- 94 Agatha Kratz and Camille Boullenois, “Irrational Expectations: Long-Term Challenges of Diversification Away from China,” Rhodium Group, September 13, 2023, <https://rhg.com/research/irrational-expectations-long-term-challenges-of-diversification-away-from-china/>.
- 95 June Teufel Dreyer, «China and Japan: ‘Hot Economics, Cold Politics,» *Orbis* 58, no. 3 (2014): 326–341, <https://www.sciencedirect.com/science/article/abs/pii/S003043871400026X>; and Jio Kimata, “The Paradox of China-Japan Relations,” *The Diplomat*, September 22, 2022, <https://thediplomat.com/2022/09/the-paradox-of-china-japan-relations/>.
- 96 Figures based on authors’ calculations using data on bilateral Japan-China trade, available from UN Comtrade Database, <https://comtradeplus.un.org>.
- 97 “China Trade Balance, Exports and Imports by Country 2002,” World Bank, accessed November 16, 2024, <https://wits.worldbank.org/CountryProfile/en/Country/CHN/Year/2002/TradeFlow/EXPIMP/Partner/by-country>; and Hitoshi Sasaki and Yuko Koga, “Trade Between Japan and China: Dramatic Expansion and Structural Changes,” Bank of Japan Economic Research Division, August 2003, https://www.boj.or.jp/en/research/wps_rev/ec/data/rkt03e03.pdf.
- 98 Ohashi Hideo, “The Impact of China’s Rise on Sino-Japanese Economic Relations,” Japan Center for International Exchange, 2004, 175–193, https://jcie.org/wp-content/uploads/2021/07/RiseofChina-RiseChina_Ohashi.pdf; “Japan/China,” Organization of Economic Complexity, Accessed November 16, 2024, <https://oec.world/en/profile/bilateral-country/jpn/partner/chn?redirect=true&dynamicBilateralTradeSelector=year2001&depthSelector=HS2Depth&measureBilateralTradeSelector=vizValueOption1&subnationalDepthSelector=HS6Depth>.
- 99 Henry Chu, “Japan, China Agree on WTO Terms,” *Los Angeles Times*, July 10, 1999, <https://www.latimes.com/archives/la-xpm-1999-jul-10-fi-54621-story.html>; and “Japan, China to Resume Currency Swap Agreement,” *The Mainichi*, October 20, 2018, <https://mainichi.jp/english/articles/20181020/p2a/00m/0na/007000c>.
- 100 “Japan to End Loans to China by 2008,” *UPI*, March 3, 2005, https://www.upi.com/Top_News/2005/03/03/Japan-to-end-to-China-by-2008/62871109847048/; and David Pilling and Richard McGregor, “Japan Says to End Development Aid to China,” *Financial Times*, March 17, 2005, <https://www.ft.com/content/1c771348-96cc-11d9-9f01-00000e2511c8>.
- 101 “Looking Back over 40 Years of ODA to China,” Japan Ministry of Finance, 2018, <https://www.mofa.go.jp/files/000557187.pdf>.
- 102 Richard C. Bush, “China-Japan Tensions, 1995-2006: Why They Happened, What To Do,” Brookings Institution, June 2009, https://www.brookings.edu/wp-content/uploads/2016/06/06_china_japan_bush.pdf; and “Poll: Disdain Between China and Japan is Mutual,” *VOA News*, September 11, 2014, <https://www.voanews.com/a/poll-disdain-between-china-and-japan-is-mutual/2446519.html>.
- 103 Lionel Beehner and Preeti Bhattacharji, “Strained Ties Between China and Japan,” Council on Foreign Relations, March 14, 2008, <https://www.cfr.org/background/strained-ties-between-china-and-japan#chapter-title-0-4>.
- 104 Beehner and Bhattacharji, “Strained Ties between China and Japan”; “U.S. Scattered Japan War Criminals Ashes at Sea to Prevent Worship,” *Kyodo News*, August 14, 2023, <https://english.kyodonews.net/news/2023/08/65408a9d57fb-us-scattered-japan-war-criminals-ashes-at-sea-to-prevent-worship.html>.
- 105 Jonathan Watts, “Violence Flares as the Chinese Rage at Japan,” *The Guardian*, April 16, 2005, <https://www.theguardian.com/world/2005/apr/17/china.japan>; and Raymond Fisman, Yasushi Hamano, and Yongxiang Wang, “Nationalism and Economic Exchange: Evidence from Shocks to Sino-Japanese Relations,” National Bureau of Economic Research, May 2014, https://www.nber.org/system/files/working_papers/w20089/w20089.pdf.

- 106 Christina L. Davis and Sophie Meunier, "Business as Usual? Economic Responses to Political Tensions," *American Journal of Political Science* 55, no. 3 (February 8, 2011): 628–646, <https://onlinelibrary.wiley.com/doi/full/10.1111/j.1540-5907.2010.00507.x>.
- 107 Justin McCurry, "Japan Struggles to Cope with China's Ascendancy," *The Guardian*, December 14, 2010, <https://www.theguardian.com/business/2010/dec/14/japan-china-economy-review-mccurry>.
- 108 "The 10th Japan-China Public Opinion Poll Analysis Report on the Comparative Data," The Genron NPO, September 9, 2014, https://www.genron-npo.net/en/opinion_polls/archives/5317.html.
- 109 "The 2010 Senkaku Crisis," Stratcom, https://stratcomcoe.org/cuploads/pfiles/senkaku_crisis.pdf.
- 110 "Does China Pose a Threat to Global Rare Earth Supply Chains?," China Power Project, Center for Strategic and International Studies, accessed November 16, 2024, <https://chinapower.csis.org/china-rare-earth/>.
- 111 Amy King and Shiro Armstrong, "Did China Really Ban Rare Earth Metals Exports to Japan?," *East Asia Forum*, August 18, 2023, <https://www.eastasiaforum.org/2013/08/18/did-china-really-ban-rare-earth-metals-exports-to-japan/>; Simon Evenett and Johannes Fritz, "Revisiting the China-Japan Rare Earths Dispute of 2010," *VOXEU*, July 19, 2023, <https://cepr.org/voxeu/columns/revisiting-china-japan-rare-earth-dispute-2010/>; and Keith Bradsher, "China to Tighten Limits on Rare Earth Exports," *New York Times*, December 28, 2010, <https://www.nytimes.com/2010/12/29/business/global/29rare.html>.
- 112 David Fickling, "Lynas, Sojitz to Distribute Rare Earths in Japan," *Wall Street Journal*, November 24, 2010, <https://www.wsj.com/articles/SB10001424052748703572404575634070483388694>; and Mary Hui, "Japan's Global Rare Earths Quest Holds Lessons for the US and Europe," *Quartz*, April 23, 2021, <https://qz.com/1998773/japans-rare-earth-strategy-has-lessons-for-us-europe>.
- 113 "Sojitz and JOGMEC Enter into Definitive Agreements with Lynas Including Availability Agreement to Secure Supply of Rare Earths Products to Japanese Market," Japan Oil, Gas and Metals National Corporation, March 30, 2011, <https://www.jogmec.go.jp/english/news/release/release0069.html>.
- 114 Tatsuya Terazawa, "How Japan Solved its Rare Earth Minerals Dependency Issue," World Economic Forum, October 13, 2023, <https://www.weforum.org/agenda/2023/10/japan-rare-earth-minerals/>.
- 115 "Does China Pose a Threat to Global Rare Earth Supply Chains?," China Power Project.
- 116 Terazawa, "How Japan Solved its Rare Earth Minerals Dependency Issue"; "JARE Extends Support for Lynas Growth Plan," Lynas Rare Earths, March 7, 2023, <https://wcsecure.weblink.com.au/pdf/LYC/02640930.pdf>; and "Lynas Reaffirms Priority RE Supplies to Japan," *Argus*, June 27, 2019, <https://www.argusmedia.com/en/news-and-insights/latest-market-news/1929327-lynas-reaffirms-priority-re-supplies-to-japan>.
- 117 Keith Bradsher, "U.S. Called Vulnerable to Rare Earth Shortages," *New York Times*, December 15, 2010, <https://www.nytimes.com/2010/12/15/business/global/15rare.html>.
- 118 "DS431: China—Measures Related to the Exportation of Rare Earths, Tungsten and Molybdenum," World Trade Organization, accessed November 16, 2024, https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds431_e.htm; and "China Scraps Quotas on Rare Earths After WTO Complaint," *The Guardian*, January 5, 2010, <https://www.theguardian.com/world/2015/jan/05/china-scraps-quotas-rare-earth-wto-complaint>.
- 119 "Does China Pose a Threat to Global Rare Earth Supply Chains?," China Power Project; Mai Nguyen and Eric Onstad, "China's Rare Earths Dominance in Focus After it Limits germanium and Gallium Exports," *Reuters*, December 21, 2023, <https://www.reuters.com/markets/commodities/chinas-rare-earth-dominance-focus-after-mineral-export-curbs-2023-07-05/>.
- 120 Yoshiyasu Shida and Yoshifumi Takemoto, "Japan Government to Halt Buying Huawei, ZTE Equipment: Sources," *Reuters*, December 7, 2018, <https://www.reuters.com/article/us-japan-china-huawei/japan-government-to-halt-buying-huawei-zte-equipment-sources-idUSKBN1O600X>; and Allana Krolkowski and Todd H. Hall, "Non-decision Decisions in the Huawei 5G Dilemma: Policy in Japan, the UK, and Germany," *Japanese Journal of Political Science*, Issue 24, February 9, 2023, https://scholarsmine.mst.edu/cgi/viewcontent.cgi?article=1211&context=his_polsci_facwork.
- 121 "Japan Bans Huawei and its Chinese Peers from Government Contracts," *Nikkei Asia*, December 10, 2018, <https://asia.nikkei.com/Economy/Trade-war/Japan-bans-Huawei-and-its-Chinese-peers-from-government-contracts>; and "An Act to Authorize Appropriations for Fiscal Year 2019 for Military Activities of the Department of Defense, for Military Construction, and for Defense Activities of the Department of Energy,

- to Prescribe Military Personnel Strengths for Such Fiscal Year, and for Other Purposes,” H.R.5515 - 115th Congress, August 13, 2018, <https://www.congress.gov/bill/115th-congress/house-bill/5515/text>.
- 122 Simon Denyer, “Japan Effectively Bans China’s Huawei and ZTE from Government Contracts, Joining U.S.,” *Washington Post*, December 10, 2018, https://www.washingtonpost.com/world/asia_pacific/japan-effectively-bans-chinas-huawei-zte-from-government-contracts-joining-us/2018/12/10/748fe98a-fc69-11e8-ba87-8c7facdf6739_story.html.
- 123 “SoftBank to Remove Existing Huawei Equipment Amid Security Concerns,” *Nikkei Asia*, December 13, 2018, <https://asia.nikkei.com/Business/Companies/SoftBank-to-remove-existing-Huawei-equipment-amid-security-concerns>.
- 124 “Bill Requiring the “Rip and Replace” of Huawei and ZTE Equipment Heads to the President’s Desk,” Wiley Law, March 2, 2020, <https://www.wiley.law/alert-Bill-Requiring-the-Rip-and-Replace-of-Huawei-and-ZTE-Equipment-Heads-to-the-Presidents-Desk>.
- 125 Chris Duckett, “FCC Gets \$5.6 Billion in Requests to Access \$1.9 Billion Pot for Ripping Out Huawei and ZTE,” *ZDNet*, February 6, 2022, <https://www.zdnet.com/article/fcc-gets-5-6-billion-in-requests-to-access-1-9-billion-pot-for-ripping-out-huawei-and-zte/>.
- 126 Yawen Chen and Se Young Lee, “China Slams U.S. Blacklisting of Huawei as Trade Tensions Rise,” *Reuters*, May 16, 2019, <https://www.reuters.com/article/us-usa-trade-china-huawei/china-slams-u-s-blacklisting-of-huawei-as-trade-tensions-rise-idUSKCN1SM0NR>.
- 127 Kazunobu Hayakawa, Keiko Ito, Kyoji Fukao, and Ivan Deseatnicov, “The Impact of the Strengthening of Export Controls on Japanese Exports of Dual-use Goods,” *International Economics* 174(August 2023): 160–179, <https://www.sciencedirect.com/science/article/abs/pii/S2110701723000239>.
- 128 David Arase, “The COVID-19 Pandemic Complicates Japan-China Relations: Will This Benefit ASEAN?,” JPRI, October, 2020, <https://jpri.org/2020/10/15/wp125/#:~:text=Due%20to%20China's%20coronavirus%20lockdown,%2C%20GDP%2C%20and%20consumer%20welfare>.
- 129 Katsuji Nakazawa, “China Up Close: Xi Fears Japan-led Manufacturing Exodus from China,” *Nikkei Asia*, April 16, 2020, <https://asia.nikkei.com/Editor-s-Picks/China-up-close/China-up-close-Xi-fears-Japan-led-manufacturing-exodus-from-China>.
- 130 Naomi Tajitsu, Makiko Yamazaki, and Ritsuko Shimizu, “Japan Wants Manufacturing back from China, but Breaking up Supply Chains is Hard to do,” *Reuters*, June 8, 2020, <https://www.reuters.com/article/us-health-coronavirus-japan-production-a/japan-wants-manufacturing-back-from-china-but-breaking-up-supply-chains-is-hard-to-do-idUSKBN23F2ZQ>; and Simon Denyer, “Japan Helps 87 Companies to Break from China After Pandemic Exposed Overreliance,” July 21, 2020, https://www.washingtonpost.com/world/asia_pacific/japan-helps-87-companies-to-exit-china-after-pandemic-exposed-overreliance/2020/07/21/4889abd2-cb2f-11ea-99b0-8426e26d203b_story.html.
- 131 Denyer, “Japan Helps 87 Companies to Break from China After Pandemic Exposed Overreliance.”
- 132 “METI’s Support Measures for Companies Concerning the Impacts of the Novel Coronavirus Disease,” Japanese Ministry of Economy, Trade, and Industry, <https://www.meti.go.jp/english/covid-19/index.html>; Ben Dooley and Makiko Inoue, “Japan Is Paying Firms to Make Things At Home. But China’s Pull Is Still Strong,” *New York Times*, September 26, 2020, <https://www.nytimes.com/2020/09/26/business/japan-onshoring.html>.
- 133 Dooley and Inoue, “Japan Is Paying Firms to Make Things At Home. But China’s Pull Is Still Strong.”
- 134 Andrea Shalal, Alexandra Alper, and Patricia Zengerle, “U.S. Mulls Paying Companies, Tax Breaks, to Pull Supply Chains From China,” *Reuters*, May 18, 2020, <https://www.reuters.com/article/us-usa-china-supply-chains/u-s-mulls-paying-companies-tax-breaks-to-pull-supply-chains-from-china-idUSKBN22U0FH>.
- 135 “President Encourages Agencies to Buy American-Produced Goods & Materials,” U.S. Congressional Research Service, February 8, 2019, <https://crsreports.congress.gov/product/pdf/LSB/LSB10256>; “Executive Order on Ensuring the Future Is Made in All of America by All of America’s Workers,” White House Archives, January 25, 2021, <https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/25/executive-order-on-ensuring-the-future-is-made-in-all-of-america-by-all-of-americas-workers/>.

- 136 “Japan Revises Rules on Foreign Investment,” United Nations Council on Trade and Development, May 7, 2020, <https://investmentpolicy.unctad.org/investment-policy-monitor/asures/3457/japan-revises-rules-on-foreign-investment>; and Shuhei Yuzawa, “Huawei Pushes Smartwatches in Japan as U.S. Sanctions Bite,” *Nikkei Asia*, December 5, 2022, <https://asia.nikkei.com/Business/China-tech/Huawei-pushes-smartwatches-in-japan-as-u.s.-sanctions-bite#>.
- 137 “Japan Moves to Tighten Restrictions on Foreign Investment in Healthcare Industries,” Morrison Foster, May 22, 2020, <https://www.mofo.com/resources/insights/200522-japan-restrictions-foreign-investment>; and Tsuguhito Omagari, Yuki Sako, and J. Ryan Dwyer, III, “Japan Restricts Foreign Investments in Technologies Amid National Security Concerns,” K&L Gates, September 3, 2019, <https://www.klgates.com/Japan-Restricts-Foreign-Investments-in-Technologies-Amid-National-Security-Concerns-09-03-2019>.
- 138 “CFIUS Reform Under FIRRMA,” Congressional Research Service, February 21, 2020, <https://crsreports.congress.gov/product/pdf/IF/IF10952#:~:text=Known%20as%20the%20Foreign%20Investment,national%20security%20implications%20of%20FDI>.
- 139 “The Objective of the Amendment to the Foreign Exchange and Foreign Trade Act,” Japan Ministry of Finance, accessed November 16, 2024, https://www.mof.go.jp/english/policy/international_policy/fdi/Overview/rules-and-regulations-FEFTA.pdf.
- 140 Toshiya Takahashi, “Japan’s Economic Security Bill a Balance Between Business and the Bureaucracy,” *East Asia Forum*, June 26, 2022, <https://eastasiaforum.org/2022/06/26/japans-economic-security-bill-balances-business-and-the-bureaucracy/>; and Jun Osawa, “How Japan Defines Economic Security,” Wilson Center, accessed November 16, 2024, https://www.wilsoncenter.org/sites/default/files/media/uploads/documents/Wilson%20Center_Reshaping%20US-Japan%20Economic%20Security%20Partnership%20in%20the%20Indo-Pacific_EXCERPT%20How%20Japan%20Defines%20Economic%20Security_0.pdf.
- 141 Kazuaki Nagata, “New Bill Looks to Beef Up Japan’s Economic Security, but Firms are Wary,” *The Japan Times*, February 14, 2022, <https://www.japantimes.co.jp/news/2022/02/14/business/economic-security-law-business-worries/>; and “Japan Passes Economic Security Bill to Guard Sensitive Technologies,” *Reuters*, May 10, 2022, <https://www.reuters.com/world/asia-pacific/japan-passes-economic-security-bill-guard-sensitive-technology-2022-05-11>.
- 142 “Summary of Economic Security Promotion Act,” Council on Foreign Relations, accessed November 16, 2024, https://www.cfr.org/sites/default/files/pdf/economic%20security%20promotion%20act%20%28summary%29%28English%29.pdf?utm_source=sendupdatelogo.
- 143 Hiroshi Asahina, “Japan Seeks to Release Rare Earths, 10 Other Critical Items from China’s Grip,” *Nikkei Asia*, December 21, 2022, <https://asia.nikkei.com/Spotlight/Supply-Chain/Japan-seeks-to-release-rare-earth-10-other-critical-items-from-china-s-grip>.
- 144 “Japan’s Economic Security Legislation,” European Parliament, July 2023, [https://www.europarl.europa.eu/RegData/etudes/ATAG/2023/751417/EPRS_ATA\(2023\)751417_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/ATAG/2023/751417/EPRS_ATA(2023)751417_EN.pdf); and “Summary of Economic Security Promotion Act,” Council on Foreign Relations.
- 145 “Japan Passes Economic Security Bill to Guard Sensitive Technologies,” *Reuters*, May 10, 2022, <https://www.reuters.com/world/asia-pacific/japan-passes-economic-security-bill-guard-sensitive-technology-2022-05-11>.
- 146 Tim Kelly and Miho Uranaka, “Japan Restricts Chipmaking Equipment Exports as it Aligns with US China Curbs,” *Reuters*, March 31, 2023, <https://www.reuters.com/technology/japan-restrict-chipmaking-equipment-exports-aligning-it-with-us-china-curbs-2023-03-31/>.
- 147 “The Wassenaar Arrangement,” Wassenaar Arrangement, accessed November 16, 2024, <https://www.wassenaar.org/>; and “Japan’s New Chip Equipment Export Rules Take Effect,” Hogan Lovells, August 16, 2023, <https://www.engage.hoganlovells.com/knowledgeservices/news/japans-new-chip-equipment-export-rules-take-effect>.
- 148 Hideki Tomoshige, “Key Differences Remain Between U.S. and Japanese Advanced Semiconductor Export Controls on China,” CSIS, May 25, 2023, <https://www.csis.org/blogs/perspectives-innovation/key-differences-remain-between-us-and-japanese-advanced-semiconductor>.
- 149 “Japan’s New Chip Equipment Export Rules Take Effect,” Hogan Lovells, August 16, 2023, <https://www.engage.hoganlovells.com/knowledgeservices/news/japans-new-chip-equipment-export-rules-take-effect>.

- 150 “Summary of the Press Conference Held by Minister Nishimura After the Cabinet Meeting,” Japanese Ministry of Economy, Trade and Industry, March 31, 2023, <https://www.meti.go.jp/speeches/kaiken/2022/20230331001.html>.
- 151 Joe Cash and Bernard Orr, “China Urges Japan to Halt Export Restrictions on Chips,” *Reuters*, May 28, 2023, [https://www.reuters.com/technology/china-urges-japan-correct-its-wrongdoing-imposing-chip-export-controls-2023-05-29/#:~:text=BEIJING%2C%20May%2029%20\(Reuters\),his%20ministry%20said%20on%20Monday](https://www.reuters.com/technology/china-urges-japan-correct-its-wrongdoing-imposing-chip-export-controls-2023-05-29/#:~:text=BEIJING%2C%20May%2029%20(Reuters),his%20ministry%20said%20on%20Monday); and Gregory C. Allen, Emily Benson, and Margot Putnam, “Japan and the Netherlands Announce Plans for New Export Controls on Semiconductor Equipment,” Center for Strategic and International Studies, April 10, 2023, <https://www.csis.org/analysis/japan-and-netherlands-announce-plans-new-export-controls-semiconductor-equipment>.
- 152 Fukutaro Yamashita, “China’s Drastic Reduction in Graphite Exports to Japan,” Asia News Network, January 22, 2024, <https://asianews.network/chinas-drastic-reduction-in-graphite-exports-to-japan/#:~:text=Graphite%20is%20an%20essential%20material,introduced%20export%20restrictions%20in%20December>.
- 153 Chris Megerian and Will Weissert, “Biden Vows to Shield US Steel Industry by Blocking Japanese Merger and Seeking New Chinese Tariffs,” *AP News*, April 17, 2024, <https://apnews.com/article/biden-china-steel-tariffs-union-workers-0399b0450b67086ca86edc43ac45e5e9>.
- 154 Joe Deaux, “Trump Promised to Kill US Steel Deal to Nippon Steel; What Will Happen Now?,” *Business Standard*, November 16, 2024, https://www.business-standard.com/world-news/trump-promised-to-kill-us-steel-deal-to-nippon-steel-what-will-happen-now-124111600140_1.html.
- 155 Joe Deaux and Josh Wingrove, “How the US Steel Takeover Became About Biden and Swing States,” *Bloomberg*, April 9, 2024, <https://www.bloomberg.com/news/features/2024-04-09/how-the-us-steel-deal-turned-japan-relations-into-a-2024-election-casualty>; and “Nippon Steel Delays U.S. Steel Purchase Until After Presidential Race,” *Kyodo News*, May 3, 2024, <https://english.kyodonews.net/news/2024/05/b7dac2dba709-nippon-steel-delays-us-steel-purchase-until-after-presidential-race.html>.
- 156 Husain Haqqani and Aparna Pande, “India Tries to Be the ‘Voice of the Global South,’” *The Hill*, September 8, 2023, <https://thehill.com/opinion/international/4194120-india-tries-to-be-the-voice-of-the-global-south>.
- 157 Ashok Malik and Tanvi Madan, “India’s Economic Ties with China: Opportunity or Vulnerability?,” Brookings, November 15, 2023, <https://www.brookings.edu/articles/indias-economic-ties-with-china-opportunity-or-vulnerability/>.
- 158 Jeanne Métiévier, Marc Bacchetta, Eddy Bekkers, and Robert Koopman, “International Trade Cooperation’s Impact on the World Economy,” World Trade Organization, January 16, 2023, https://www.wto.org/english/res_e/reser_e/ersd202302_e.pdf; and Anthea Roberts, “From Risk to Reliance: How Economies Can Thrive in a World of Threats,” *Foreign Affairs*, November 2023, <https://www.foreignaffairs.com/world/risk-resilience-economics>.
- 159 Rhik Kundu, “Indian Companies Should Reduce Dependence on China, Reiterates Jaishankar,” *Live Mint*, May 17, 2024, <https://www.livemint.com/economy/indian-companies-should-reduce-dependence-on-china-reiterates-jaishankar-11715944608863.html>.
- 160 “Economic Survey 2023-24,” Indian Ministry of Finance, July 2024, <https://www.indiabudget.gov.in/economicsurvey/doc/echapter.pdf>.
- 161 Peter Brennan and Ingrid Lexova, “India Unlikely to Fill China-Shaped Hole in US Supply Chains,” S&P Global, July 24, 2023, <https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/india-unlikely-to-fill-china-shaped-hole-in-us-supply-chains-76590061>; and Zonguyan Zoe Liu, “China’s Real Economic Crisis,” *Foreign Affairs*, September 2024, <https://www.foreignaffairs.com/china/chinas-real-economic-crisis#:~:text=In%20July%202024%2C%20Chinese%20official.return%20to%20its%20former%20strength>.
- 162 “Timeline: The Line of Actual Control Between China and India,” *TRT World*, 2020, <https://www.trtworld.com/asia/timeline-the-line-of-actual-control-between-china-and-india-37423>.
- 163 Rashmi Banga, “Trade Facilitation and Hollowing-out of Indian Manufacturing,” *Economic and Political Weekly* (2014): 57–63, <https://www.jstor.org/24480824>; and Malik and Madan, “India’s Economic Ties with China: Opportunity or Vulnerability?”

- 164 Vivek Kaul, “The Tale of Two Economies: What Changed in 30 Years,” *LiveMint*, June 23, 2020, <https://www.livemint.com/news/india/the-tale-of-two-economies-what-changed-in-30-years-11592930762996.html>.
- 165 “GDP (current US\$) – India,” World Bank, accessed November 16, 2024, <https://data.worldbank.org/indicator/NY.GDP.MKTP.CD?locations=IN>; “GDP (current US\$) – China,” World Bank, accessed November 16, 2024, <https://data.worldbank.org/indicator/NY.GDP.MKTP.CD?locations=CN>.
- 166 Jingdong Yuan, “Sino–Indian Economic Ties Since 1988: Progress, Problems, and Prospects for Future Development,” *Journal of Current Chinese Affairs* 45, no. 3 (2016): 31–71, <https://journals.sagepub.com/doi/10.1177/186810261604500302#:~:text=The%20past%20quarter%20of%20a,inward%20and%20outward%20FDI%20volumes>.
- 167 Malik and Madan, “India’s Economic Ties with China: Opportunity or Vulnerability?”
- 168 “Services, Value Added (% of GDP) – India,” World Bank, accessed November 16, 2024, <https://data.worldbank.org/indicator/NV.SRV.TOTL.ZS?locations=IN>; Siddhi Nayak and Shivangi Acharya, “India’s Surging Services Exports May Shield Economy from External Risks,” Reuters, April 3, 2023, [https://www.reuters.com/world/india/indias-surging-services-exports-may-shield-economy-external-risks-2023-04-03/#:~:text=India's%20services%20exports%20rose%204.5,to%20a%20record%20%2438.7%20billion](https://www.reuters.com/world/india/indias-surging-services-exports-may-shield-economy-external-risks-2023-04-03/#:~:text=India's%20services%20exports%20rose%204.5,to%20a%20record%20%2438.7%20billion;); and Manya Rathore, “Manufacturing Sector’s Value Added as Share of GDP India 2010–2023,” Statista, September 19, 2023, <https://www.statista.com/statistics/1379872/india-manufacturing-as-a-share-of-gdp/>.
- 169 “ICT Service Exports (% of Service Exports, BoP) – India,” World Bank, accessed November 18, 2024 <https://data.worldbank.org/indicator/BX.GSR.CCIS.ZS?locations=IN>.
- 170 “Computers in India,” Organization of Economic Complexity, accessed November 16, 2024, <https://oec.world/en/profile/bilateral-product/computers/reporter/ind>; and “Bilateral Trade in Integrated Circuits,” Organization of Economic Complexity, accessed November 16, 2024, <https://oec.world/en/profile/bilateral-product/integrated-circuits/reporter/ind>.
- 171 Teslu Singh, “Sino-Indian Strategic Economic Dialogue,” IPCS Issue Brief No. 184, March 2012, <https://www.files.ethz.ch/isn/142629/IB184-Teshu-IndiaChina.pdf>; and Malik and Madan, “India’s Economic Ties with China: Opportunity or Vulnerability?”
- 172 Malik and Madan, “India’s Economic Ties with China: Opportunity or Vulnerability?”
- 173 Sankalp Phartiyal and Promit Mukherjee, “India’s Anti-China Steel Tariffs Bite Engineering, Manufacturing Firms,” *Reuters*, August 3, 2016, <https://www.reuters.com/article/idUSKCN10E0S7/>.
- 174 “Database of Anti-Dumping Investigations,” World Trade Organization, accessed November 16, 2024, <https://trade-remedies.wto.org/en/antidumping/investigations#eyJ5ZWZlcyI6WzlwMDAsMjAwMSwyMDAyLDIwMDMsMjAwNCwyMDA1LDIwMDYsMjAwNywyMDA4LDIwMDksMjAxMCwyMDE4LDIwMTIsMjAxMywyMDE0LDIwMTUsMjAxOSwyMDE4LDIwMTcsMjAxNl0sInJlcG9ydGluZ01lbWJlcjcnMiOltr7ImNvZGUiOiJDMzU2IiwibGFiZWwiOiJlbmRpYSJ9XSwiZl0sInRpb25zIjpbXX0=>.
- 175 Hylke Vandenbussche and Christian Viegelaahn, *Indian Antidumping Measures Against China: Evidence From Monthly Trade Data*, No. 322, LICOS Discussion Paper, 2012, <https://www.econstor.eu/bitstream/10419/74971/1/dp322.pdf>,
- 176 Suyash Rai and Anirudh Burman, “Is the Make in India Initiative Working? | Mihai Varga on World Bank-Led Land Reforms in Eurasia,” Carnegie Endowment for International Peace, October 4, 2023, <https://carnegieendowment.org/india/ideas-and-institutions/is-the-make-in-india-initiative-working-or-mihai-varga-on-world-bank-led-land-reforms-in-eurasia?lang=en>; and Pragynesh, “Make in India: Has the Ambitious Initiative Lived Up To Expectations?,” *The Probe*, July 19, 2023, <https://theprobe.in/stories/make-in-india-has-the-ambitious-initiative-lived-up-to-expectations/>,
- 177 Hardeep S. Puri, “India’s Trade Policy Dilemma and the Role of Domestic Reform,” Carnegie Endowment for International Peace, February 16, 2017, <https://carnegieendowment.org/research/2017/02/indias-trade-policy-dilemma-and-the-role-of-domestic-reform?lang=en>; and “India Must Abandon Protectionism,” *The Economist*, August 17, 2023, <https://www.economist.com/leaders/2023/08/17/india-must-abandon-protectionism>.

- 178 Pranay Kotasthane, Trisha Ray, and Tanvi Madan, “India’s Technology Competition with China,” Brookings Institution, November 29, 2023, <https://www.brookings.edu/articles/indias-technology-competition-with-china/>.
- 179 “India-China Clash: 20 Indian Troops Killed in Ladakh Fighting,” *BBC*, June 16, 2020, <https://www.bbc.com/news/world-asia-53061476>.
- 180 “Press Note No. 3,” Indian Ministry of Commerce and Security Department for Promotion of Inudstry and Internal Trade, 2020, https://dpiit.gov.in/sites/default/files/pn3_2020.pdf.
- 181 “New Foreign Investment Restrictions Imposed by India,” Gibson Dunn, May 26, 2020, https://www.gibsondunn.com/new-foreign-investment-restrictions-imposed-by-india/#_ftn5.
- 182 “Investment Climate in India Has Improved Considerably Since the Opening Up of the Economy in 1991,” Invest India, accessed November 16, 2024, <https://www.investindia.gov.in/foreign-direct-investment>.
- 183 “Government Bans 59 Mobile Apps Which are Prejudicial to Sovereignty and Integrity of India, Defence of India, Security of State and Public Order,” Government of India, June 29, 2020, <https://pib.gov.in/PressReleaseDetailm.aspx?PRID=1635206>.
- 184 “Mobile & Tablet Browser Market Share India,” StatCounter, October, 2024, <https://gs.statcounter.com/browser-market-share/mobile-tablet/india/2016>; Ojasvi Goel and Yash Bajaj, “Breaking Free of the Digital Dragon: Responding to China’s Growing Control Over India’s ICT,” Observer Research Foundation, September 2017, <https://www.orfonline.org/public/uploads/posts/pdf/20230722183016.pdf>; and “Xender and UC Browser Banned: The Latest Salvo in India vs China Tech Fight,” posted by Pikashow APK Download Latest Version For Android, on Medium, November 8, 2023, <https://medium.com/@pikashow-apk/xender-and-uc-browser-banned-the-latest-salvo-in-india-vs-china-tech-fight-bed38050e955>.
- 185 “India to Impose Permanent Ban on 59 Chinese Apps, Including TikTok – Indian Media,” *Reuters*, January 25, 2021, <https://www.reuters.com/world/china/india-impose-permanent-ban-59-chinese-apps-including-tiktok-indian-media-2021-01-25/>.
- 186 “India Adds 54 More Chinese Apps to Ban List; Sea Says it Complies with Laws,” *Reuters*, February 15, 2022, <https://www.reuters.com/world/india/sea-owned-game-free-fire-unavailable-india-after-ban-chinese-apps-2022-02-15/>.
- 187 “Executive Order on Addressing the Threat Posed by TikTok,” White House Archives, August 6, 2020, <https://trumpwhitehouse.archives.gov/presidential-actions/executive-order-addressing-threat-posed-tiktok/>.
- 188 “India Allows Huawei to Participate in 5G Trials,” *Economic Times of India*, December 31, 2019, <https://economictimes.indiatimes.com/industry/telecom/telecom-news/govt-will-give-5g-spectrum-for-trials-to-all-players-prasad/articleshow/73033442.cms>.
- 189 Harsh V. Pant, “India Draws a Line in the 5G Sand,” *Foreign Policy*, May 18, 2021, <https://foreignpolicy.com/2021/05/18/india-draws-a-line-in-the-5g-sand/>.
- 190 Gagandeep Kaur, “India Tightens Restrictions on Huawei, ZTE,” *Light Reading*, July 12, 2022, <https://www.lightreading.com/5g/india-tightens-restrictions-on-huawei-zte#close-modal>.
- 191 Pranay Kotasthane, Trisha Ray, and Tanvi Madan, “India’s Technology Competition with China,” Brookings Institution, November 29, 2023, [https://www.brookings.edu/articles/indias-technology-competition-with-china/#:~:text=And%20India%20is%20hugely%20dependent,largest%20growing%20markets%20for%20semiconductors;Gaurav%20Goel,%20How%20Can%20India%20Decouple%20and%20Diversify%20from%20China%20in%20the%20Critical%20and%20Emerging%20Technologies%20\(CETs\)%20Domain?](https://www.brookings.edu/articles/indias-technology-competition-with-china/#:~:text=And%20India%20is%20hugely%20dependent,largest%20growing%20markets%20for%20semiconductors;Gaurav%20Goel,%20How%20Can%20India%20Decouple%20and%20Diversify%20from%20China%20in%20the%20Critical%20and%20Emerging%20Technologies%20(CETs)%20Domain?); Gaurav Goel, “How Can India Decouple and Diversify from China in the Critical and Emerging Technologies (CETs) Domain?,” posted on LinkedIn, October 22, 2023, <https://www.linkedin.com/pulse/how-can-india-decouple-diversify-from-china-critical-emerging-goel/>; and Manish Vaid, “From Dependency to Dominance: India’s Critical Mineral Crusade,” *The Diplomat*, January 10, 2024, <https://thediplomat.com/2024/01/from-dependency-to-dominance-indias-critical-mineral-crusade/#:~:text=Notably%2C%20India%20relies%20entirely%20on,its%20national%20and%20economic%20security>.
- 192 Rajesh Roy, “Importing Laptops Into India Will Now Require a Permit,” *Wall Street Journal*, August 4, 2023, <https://www.wsj.com/articles/india-restricts-laptop-imports-to-boost-local-manufacturing-244cf56a>.

- 193 Shivangi Acharya, “U.S. Trade Chief Flags Concerns Over India’s License Mandate for Laptop, Tablet Imports,” *Reuters*, August 27, 2023, <https://www.reuters.com/markets/asia/us-trade-chief-flags-concerns-over-indias-license-mandate-laptop-tablet-imports-2023-08-27/>.
- 194 “Computers,” *Organization of Economic Complexity*, accessed November 16, 2024, <https://oec.world/en/profile/hs/computers>; and Tim Culpan, “View: India’s PC Import Restrictions Smell Like Desperation,” *Economic Times*, August 10, 2023, <https://economictimes.indiatimes.com/news/economy/policy/view-indias-pc-import-restrictions-smell-like-desperation/articleshow/102589144.cms?from=mdr>.
- 195 “Govt Reverses Decision on Laptop, Tablets Import Restrictions; Know Why and What it Means,” *DNA India*, October 14, 2023, <https://www.dnaindia.com/business/report-govt-reverses-decision-on-laptop-tablets-import-restrictions-know-why-and-what-it-means-3064411>.
- 196 “Production Linked Incentive Scheme (PLI) for Large Scale Electronic Manufacturing,” Indian Ministry of Electronics & Information Technology, accessed November 16, 2024, <https://www.meity.gov.in/esdm/pli>. Incremental sales are defined as any increase in sale of products manufactured in India over the 2019–2020 year. To be eligible for subsidies, manufacturers must meet a minimum investment threshold for investment in R&D or other manufacturing-related expenditure. Importantly, companies do not have to be owned by Indian citizens to apply, and “manufacturing” is defined as any process that results in the creation of a distinct product. See “Guidelines for the Operation of Production Linked Incentive Scheme (PLI) for Large Scale Electronics Manufacturing,” Indian Ministry of Electronics and Information Technology, June 1, 2020, https://www.meity.gov.in/writereaddata/files/Guidelines_Final_PLI%20for%20LSEM_01.06.2020.pdf.
- 197 “Mobile Vendor Market Share India,” Global Stats Stat Counter, accessed November 16, 2024, <https://gs.statcounter.com/vendor-market-share/mobile/india>.
- 198 “China’s Xiaomi Adds Manufacturing Muscle in India to Boost Phone Production,” *Reuters*, February 25, 2021, <https://www.reuters.com/technology/chinas-xiaomi-adds-manufacturing-muscle-india-boost-phone-production-2021-02-25/>.
- 199 “99.2 Percent of Mobiles ‘Made in India:’ Ashwini Vaishnaw Reviews Meteoric Growth of Indian Mobile Sector,” *Economic Times of India*, November 25, 2023, <https://economictimes.indiatimes.com/industry/cons-products/electronics/99-2-per-cent-of-mobiles-made-in-india-ashwini-vaishnaw-reviews-meteoric-growth-of-indian-mobile-sector/articleshow/105496885.cms?from=mdr>.
- 200 “Is India Really Manufacturing Mobile Phones?: Former RBI Governor Raghuram Rajan on PLI Scheme,” *Business Today*, May 31, 2023, <https://www.businesstoday.in/latest/in-focus/story/is-india-really-manufacturing-mobile-phones-former-rbi-governor-raghuram-rajan-on-pli-scheme-383469-2023-05-30>.
- 201 Rahul Chauhan, Rohit Lamba, and Raghuram Rajan, “Has India Really Become a Mobile Phone Manufacturing Giant?,” *The Wire*, June 1, 2023, <https://thewire.in/trade/india-mobile-phone-manufacturing-giant-assembly>.
- 202 Chauhan, Lamba and Rajan, “Has India Really Become a Mobile Phone Manufacturing Giant?”
- 203 Mohammad Athar and Sujay Shetty, “India Calling: Decoding the Country’s Electronics Manufacturing Journey and the Way Forward,” *PwC*, 2023, <https://www.pwc.in/assets/pdfs/india-calling-decoding-the-countrys-electronics-manufacturing-journey-and-the-way-forward/india-calling-decoding-the-countrys-electronics-manufacturing-journey-and-the-way-forward.pdf>.
- 204 Ben Lovejoy, “Made in India iPhones Triple, As Apple Shift More Production from China,” *9to5 Mac*, April 13, 2023, <https://9to5mac.com/2023/04/13/made-in-india-iphones/>; Manish Singh, “Apple to Move 25% iPhone Production to India by 2025, 20% iPad and Apple Watch to Vietnam, Analysts Say,” *TechCrunch*, September 21, 2022, <https://techcrunch.com/2022/09/21/apple-to-move-25-iphone-production-to-india-by-2025-20-ipad-and-apple-watch-to-vietnam>,
- 205 Melissa Cyril and James Fox, “Apple’s Contract Manufacturers and Component Suppliers in India,” Dezan Shira and Associates, November 11, 2024, <https://www.india-briefing.com/news/apple-contract-manufacturing-india-new-suppliers-getting-clearance-26947.html>.

- 206 Ayushi Kar, “Local Value Addition in ‘Made in India’ Smartphones Climbs 16% in 2023,” *Business Line*, October 17, 2023, <https://www.thehindubusinessline.com/info-tech/local-value-addition-for-smartphones-climbs-up-to-16-per-cent-in-2023/article67431038.ece>; and Adam Jourdan, “Designed in California, Made in China -How the iPhone Skews U.S. Trade Deficit,” March 22, 2018, <https://www.reuters.com/article/idUSKBN1GX1HI/>.
- 207 Raghuram Rajan, “Is India Really Manufacturing Mobile Phones?,” post on LinkedIn, 2023, <https://www.linkedin.com/posts/raghuram-rajana-is-india-really-manufacturing-mobile-phones-activity-7068837851085340673-XVF2>.
- 208 “Government Extends Mobile Phone PLI Scheme by a Year Till 2025–2026,” *Times of India*, June 28, 2021, <https://timesofindia.indiatimes.com/business/india-business/government-extends-mobile-phone-pli-scheme-by-a-year-till-2025-26/articleshow/83922785.cms>.
- 209 Qianer Liu and John Reed, “Apple Moves Towards India-Made iPhone Batteries in Push Away From China,” *Financial Times*, December 6, 2023, <https://www.ft.com/content/1eee7956-a5be-4df0-a9a9-139c573c4f8f>.
- 210 Yuqing Xing, “How the iPhone Widens the US Trade Deficit with China: The Case of the iPhone X,” *GRIPS Discussion Papers* (2019), <https://econpapers.repec.org/paper/ngidpaper/19-21.htm>.
- 211 Ashoka Mody, “Why India, Unlike China, Won’t Be an Economic Superpower,” August 1, 2023, <https://www.aspistrategist.org.au/why-india-unlike-china-wont-be-an-economic-superpower>; Megha Mandavia and Nathaniel Taplin, “Why India Isn’t the New China,” *Wall Street Journal*, January 19, 2024, <https://www.wsj.com/economy/global/why-india-isnt-the-new-china-e61f4699>.
- 212 “80% Funds Allocated for Semiconductor Manufacturing Scheme Remain Unused,” *The Hindu Bureau*, November 07, 2023, <https://www.thehindu.com/business/80-funds-allocated-for-semiconductor-manufacturing-scheme-remain-unused/article67509688.ece>.
- 213 “Tata Group to Build the Nation’s First Fab in Dholera,” Tata Group, February 29, 2024, <https://www.tata.com/newsroom/business/first-indian-fab-semiconductor-dholera#:~:text=In%20a%20significant%20step%20towards,Gujarat%20in%20partnership%20with%20PSMC>.
- 214 Amy Sood, “Can Modi’s US\$15.2 billion chip bet turn India into a semiconductor powerhouse?,” *South China Morning Post*, July 23, 2024, <https://www.scmp.com/week-asia/economics/article/3271462/can-modis-152-billion-chip-bet-turn-india-semiconductor-powerhouse>.
- 215 Konark Bandhari, “Is India ‘Ready’ for Semiconductor Manufacturing?,” Carnegie Endowment for International Peace, May 23, 2023, <https://carnegieindia.org/2023/05/23/is-india-ready-for-semiconductor-manufacturing-pub-89814>.
- 216 Malik and Madan, “India’s Economic Ties with China: Opportunity or Vulnerability?”
- 217 “India Unlikely to Fill China-shaped Hole in US Supply Chains,” S&P Global, July 24, 2023, <https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/india-unlikely-to-fill-china-shaped-hole-in-us-supply-chains-76590061>.
- 218 Shan Li and Vibhuti Agarwal, “India Is Behind the Curve on Women in the Workforce,” *Wall Street Journal*, August 28, 2023, <https://www.wsj.com/story/india-is-behind-the-curve-on-women-in-the-workforce-5561033e>.
- 219 “Why Is Manufacturing More Expensive in India Than in China,” *Forbes*, December 13, 2017, <https://www.forbes.com/sites/quora/2017/12/13/why-is-manufacturing-more-expensive-in-india-than-in-china/>.
- 220 Shan Li and Vibhuti Agrawal, “India Wanted a Manufacturing Boom. Its Workers Are Back on the Farm Instead,” *Wall Street Journal*, January 5, 2024, <https://www.wsj.com/world/india/india-wanted-a-manufacturing-boom-its-workers-are-back-on-the-farm-instead-e94bb940>.
- 221 Michaela Madden, “Everything You Need to Know About China Plus One,” *Z2Data*, August 25, 2023, <https://www.z2data.com/insights/everything-you-need-to-know-about-china-plus-one>.

- 222 “One Hundred and Seventy-Ninth Report,” Department Related Parliamentary Standing Committee on Commerce, Parliament of India, March 2023, https://sansad.in/getFile/rsnew/Committee_site/Committee_File/ReportFile/13/174/179_2023_5_12.pdf?source=rajyasabha; “FACT SHEET: In Asia, President Biden and a Dozen Indo-Pacific Partners Launch the Indo-Pacific Economic Framework for Prosperity,” White House, May 23, 2022, <https://www.whitehouse.gov/briefing-room/statements-releases/2022/05/23/fact-sheet-in-asia-president-biden-and-a-dozen-indo-pacific-partners-launch-the-indo-pacific-economic-framework-for-prosperity/>.
- 223 Rhik Kundu, “Indian Companies Should Reduce Dependence on China, Reiterates Jaishankar,” *Mint*, May 17, 2024, <https://www.livemint.com/economy/indian-companies-should-reduce-dependence-on-china-reiterates-jaishankar-11715944608863.html>; and Eric Olander, “Jaishankar Says India Needs to Bolster Its Manufacturing Sector if It Wants to Effectively Counter China,” *China Global South Project*, March 18, 2024, <https://chinaglobalsouth.com/2024/03/18/jaishankar-says-india-needs-to-bolster-its-manufacturing-sector-if-it-wants-to-effectively-counter-china>.
- 224 Tanvi Madan, “Is There Going to Be an India-China Deal?,” Brookings, July 2, 2024, <https://www.brookings.edu/articles/is-there-going-to-be-an-india-china-deal>.
- 225 Madan, “Is there Going to Be an India-China Deal?”
- 226 Stefan Talmon, “Germany Raises Concerns Over Human Rights Situation in Xinjiang,” *German Practice in International Law*, October 15, 2020, <https://gpil.jura.uni-bonn.de/2020/10/germany-raises-concerns-over-human-rights-situation-in-xinjiang>; Scilla Alecci, “UK, US and Germany Say Xinjiang Police Files Offer ‘Shocking’ New Evidence of China’s Human Rights Abuses,” *International Consortium of Investigative Journalists*, May 24, 2022, <https://www.icij.org/investigations/china-cables/uk-us-and-germany-say-xinjiang-police-files-offer-shocking-new-evidence-of-chinas-human-rights-abuses>; and “German Report Spells Out China Human Rights Abuse,” *DW*, January 1, 2021, <https://www.dw.com/en/german-report-spells-out-china-human-rights-abuses-against-uighur-muslims/a-52216644>.

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