

China's Steel Subsidies: Global Implications in Steel Industries and WTO Competency

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Abstract: Since China joined the World Trade Organizations (WTO) in 2001, its steel industry has experienced rapid growth, driven by extensive government subsidies and strategic industrial policies. This paper examines the types and scale of these subsidies, including cash grants, preferential loans, debt-for-equity swaps and export incentives and evaluates their compliance with WTO rules, particularly prohibited and actionable subsidies. The analysis shows how China's support has enabled its steel sector to dominate global markets, causing oversupply and affecting other countries, while similar strategies are being replicated in emerging sectors like electric vehicles and renewable energy. Findings indicate that these policies strengthen China's economic position but raise concerns over trade fairness and WTO compliance. Recommendations include more objective, criteria-based subsidy allocation, diversification of government support across industries and greater transparency to align with international trade rules. This study highlights the broader implications of state interventions and industrial policy within China's export-oriented growth model.

Keywords: China, Steel Industry, Government Subsidies, WTO Compliance, Export-oriented growth, Oversupply, Trade Fairness, Industrial Policy.

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1. Introduction

1.1. China's History with the WTO

China's take on the pursuit of "Free Trade Liberalization" had sparked its first controversies dating back to its accession in 2001 into the World Trade Organization (WTO), and now the country is facing doubts on its position in assisting WTO rulings and policies amidst a distorted trade environment. One of the earliest controversies China has been scrutinized for is its self-imposed "developing status". Developing countries & LDCs with this status have the privilege of utilizing the Special and Differential treatment where states are given longer transition periods applying WTO proceedings, support member countries in dispute settlements, and ensure that these Developing countries can compete in the multilateral trade system.¹ China's industries have greatly benefited from the Special and Differential treatment on emerging industries from clean energy to advanced manufacturing, making China a diversifying competitor (Yufeng & Wang, 2024, p.5).² China's competitiveness did not come solely from these growing industries themselves; studies on China's dominating industries such as automotive EVs, solar panels, and its most dominant, steel, identifies substantial state-aid through the developing status, allowing these specific industries to outcompete its counterparts.³ Many member states and non-members of the WTO have grown skeptical about China's rapid growth over the past decade since its accession, as the nation might have the potential to disrupt and challenge the current global trade order. To contextualize China's rise in industrial development and influence in global trade relations, it is essential to examine the significant reforms China has implemented, aiding its transition into the WTO.

How did China become an export-oriented economy? Sachs' study on "*China's Economic Growth After WTO Membership, 2003*" emphasizes economic restructuring China had to undergo, as its economy consists of an abundant state-owned enterprises (SOEs), preventing China from adopting WTO policies in the early 1980s.⁴ These state-owned enterprises were government-owned companies and were the primary weakness preventing China's accession and incapability to integrate the proposed economic reforms. Sachs provides two schools of thought potential routes to rearrange its economy. The first school of thought, known as Experimental thought or Institutional Innovation, proposes practices like collective ownership of local business through Township and Village enterprises (TVEs) and incentive contracts by SOEs' thereby promoting growth through domestic measures, are examples of dual track pricing intended to achieve non-capitalist growth. In order for China's economy to compete with that of other member states like the US, EU, and Japan, the second school of thought suggests institutional convergence. Adhering to the adoption of international models—particularly WTO economic models— and policies that generate development. Adopting these economic frameworks implies China's adherence to international models, phasing into a capitalist view on economic management, and opening borders to competition in domestic markets,

¹ "WTO | Development - Special and Differential Treatment Provisions," accessed October 31, 2025, https://www.wto.org/english/tratop_e/devel_e/dev_special_differential_provisions_e.htm#legal_provisions.

² Yufeng Qiao and Guang Wang, "Recent Status of Production, Administration Policies, and Low-Carbon Technology Development of China's Steel Industry," *Metals* 14, no. 4 (2024): 480, <https://doi.org/10.3390/met14040480>.

³ Nikki Trewin et al., "'It's You, Not Me': China's Subsidies and Global Trade Tensions," *Australian Institute of International Affairs*, October 21, 2024, <https://www.internationalaffairs.org.au/australianoutlook/its-you-not-me-chinas-subsidies-and-global-trade-tensions/>.

⁴ Jeffrey D Sachs and Wing Thye Woo, *China's Economic Growth After WTO Membership*, September 19, 2002.

resulting in weakened local industries deeming it controversial. Nevertheless, the impacts of joining the WTO outweighed the preconceived threats to national sovereignty, as according to Sachs in his study, membership in the WTO guaranteed market access in the West with the Permanent Normal Trade Relations (PNTR) increasing Chinese exports due to the elimination of protectionist policies in trade related investment measures and non tariff barriers. Other benefits mentioned are the following: reinforcement of reforms, redirection of investments in SOEs, and attracting Foreign Direct Investments, predicting China's potential growth from 2001 to 2005 alone, amounting to \$1 trillion from foreign investments alone.⁵

Accession to the WTO was proven to be beneficial for China's economy, increasing its bargaining power and garnering a leading status within International Trade. Its Export-Oriented model was attainable at the cost of deep economic restructuring, emphasizing distribution of investments, abolishing protectionist policies in exchange for open markets, and allowing foreign investment to enter the country despite the implied damage to the domestic economy. While many state representatives of China viewed its entry into the WTO positively, politically many member states have started to question China's growth over the past decade. Previously, issues revolved around China's "developing status"; however, the US and EU have growing concerns with China's economic growth spike threatening leading economies, more so with developing countries. Robert Atkinson, in his article "*The Explosive Rise of Subsidies to Chinese Industry*", references the work of Haley & Haley's *Subsidies to Chinese Industry: State Capitalism, Business Strategy, and Trade Policy (2013)* investigates China's commitments to industrial subsidies that have contributed to the country's highest GDP growth of the last decade (Atkinson, 2013).⁶ This issue has brought about the mass unemployment in US manufacturing due to the newfound competitiveness China has accumulated in trade surplus (Haley & Haley, 2013, as cited in Atkinson, 2013).⁷ This proposal aims to highlight China's competitive industry, more so the steel industry, examining China's industrial expansion and how China's steel exports are flooding global markets through the unregulated aid of government subsidies, questioning the position of the WTO as a mediator of international trade.

1.2. China's Dominance in the Steel Industry

According to Business Insight (2025), China's investment and focus on the steel industry can be traced back to the period of following the Chinese Civil War and the founding of the People's Republic of China in 1949, when steel production became a national priority.⁸ Mao Zedong's "Great Leap Forward" sought to rapidly industrialize the country through mass steel production, although facing major inefficiencies and quality issues. The industry later experienced significant transformations during the economic reforms led by Deng Xiaoping in the late 20th century, marked by modernization, foreign investment, and technology adoption. Later on these reforms allowed China's steel industry to expand rapidly and become a key foundation of its industrial growth.

Over the decades, this consistent focus on industrial expansion and state-backed modernization has positioned steel as a strategic sector in China's economic planning. However, such large-scale production has also made the industry heavily dependent on external markets to absorb its output. In recent years,

⁵ Sachs and Woo, *China's Economic Growth After WTO Membership*.

⁶ Robert Atkinson, "The Explosive Rise of Subsidies to Chinese Industry," The Breakthrough Institute, November 24, 2013, <https://thebreakthrough.org/articles/the-explosive-rise-of-subsidies-to-chinese-industry>.

⁷ Atkinson, "The Explosive Rise of Subsidies to Chinese Industry."

⁸ Helen Ethan, "The Rise of China's Steel Industry: A Global Powerhouse in the Making," Made-in-China.Com, September 13, 2024, https://insights.made-in-china.com/The-Rise-of-China-s-Steel-Industry-A-Global-Powerhouse-in-the-Making_JTGfCwKgElz.html.

prolonged weakness in China's property sector has reduced steel demand, leading to high inventories and prompting manufacturers to seek overseas markets to maintain production levels and preserve employment in steel-producing regions.⁹

This export-oriented shift has intensified China's global presence in the steel market. As a result, China's steel exports have surged significantly and dramatically, rising by an unprecedented 320% in the first seven months of 2025, reaching 7.4 million tonnes of semi-finished steel exports.¹⁰ According to Basson (2025), China remains the world's top steel producer, with an output of 130.09 million tonnes in 2024.¹¹ TradeImex (2025) further reports that China leads globally in steel exports, with a total export value of USD 70.84 billion in 2025.¹² This level of production is reflected in China's global market shares of 23% in steel exports in 2024, significantly reducing the market share of other major steel exporters (Drewry, 2025), reaffirming its dominance in the global steel industry.¹³

This dominance, however, is not solely the result of market efficiency but is deeply rooted in extensive government support. According to the Associations for Iron and Steel Technology (2006), the Chinese Government has provided direct assistance through non-commercial ownership transfers, debt-to-equity conversions, debt forgiveness, preferential loans, tax incentives, land and cash grants, and major infrastructure support.¹⁴ The government also offered indirect protection through import restrictions and barriers to foreign investment. These policies enabled China's steel output to grow by over 170% and exports by 140% between 2000 and 2005.

Further reinforcing this advantage, an OECD (2025) report found that Chinese firms receive five times more subsidies per unit of revenue than firms in partner economies and ten times more than those in OECD member countries.¹⁵ These subsidies are cash grants, below-market borrowings, and corporate tax concessions are dominantly directed towards state-owned or heavily indebted firms, allowing them to sustain productions, undercut global competitors and strengthen China's dominance in the international steel markets.

1.3. China's Implications for Other Industries

Furthermore, China's strategic approach in the steel industry allowed them to dominate global markets. Marked with extensive state intervention and industrial subsidies, they are able to step forward in advancing newer, high-tech sectors such as electric vehicles and sustainable energy. China's automotive market price is increasing significantly, portraying the competition as a winning innovation through

⁹ Zadeh, "China's Semi-Finished Steel Exports Surge 320% in 2025," News, *Discovery Alert*, August 26, 2025, <https://discoveryalert.com.au/news/chinas-steel-export-strategy-evolution-2025-semi-finished/>.

¹⁰ Zadeh, "China's Semi-Finished Steel Exports Surge 320% in 2025."

¹¹ Basson, "World Steel in Figures 2025," *Worldsteel.Org*, n.d., accessed October 31, 2025, <https://worldsteel.org/data/world-steel-in-figures/world-steel-in-figures-2025/>.

¹² Infinite, "US-China Trade Deal 2025 Explained: Impact on Exports, Imports & Tariffs," Infinite, June 30, 2025, <https://www.tradeimex.in/blogs/us-china-trade-deal-2025-impact-on-exports-imports-tariffs>.

¹³ "Contradictions in Steel Market: Implications of China's Export Expansion," Drewry, January 15, 2025, <https://www.drewry.co.uk/maritime-research-opinion-browser/maritime-research-opinions/contradictions-in-steel-market-implications-of-chinas-expansion-in-exports>.

¹⁴ Trewin et al., "It's You, Not Me."

¹⁵ OECD, "The Drivers and Impacts of Subsidies to Steel Firms," *OECD Science, Technology and Industry Policy Papers*, ahead of print, OECD Publishing, October 8, 2025, <https://doi.org/10.1787/33e4b097-en>.

relentless price cuts.¹⁶ According to a research by Betty Huang and Le Xia, they argued that China's EV growth in value has reached where the EU Commission has threatened to impose retroactive provisional countervailing tariffs as a response to their anti-subsidy investigation over Chinese EV exports.¹⁷ China's New Energy Vehicle (NEV) export is growing faster in H1 2025 with 74.3% more units in H1 2024.¹⁸ China's NEVs surpassed the Internal Combustion Engine (ICE) sales in H1 2025. China's rise in the EV market illustrates the replication of its steel-era strategy, signifying a wider industrial shift that continues to transform global trade dynamics.

Technology in China has its own advancement as their markets expand throughout the globe. Following the success of its steel and electric vehicle industries, China also allocated their attention to their solar photovoltaic and battery industries. The solar photovoltaic market has been forecast to grow from USD 339.7 billion in 2025 to USD 753.9 billion in 2035 (Future Market Insights, 2025).¹⁹ The market valuation for China's solar photovoltaic in 2024 is USD 12.1 billion and is expected to grow with a compound annual growth rate of 8.7%.²⁰ With this, China's strategy in market penetration has dominated most high-cost and advanced industries that made future implications inevitable.

Joining the World Trade Organization sparked big changes for China's economy, shifting how countries worldwide do business. It started as opening up markets, yet morphed into a system where the government guided investment, shielded industries, then pushed exports hard. Steel, once supported domestically, grew through state backing, disrupting world markets with oversupply and distorted prices. This influence has expanded into sectors like electric cars and green power, reflecting ongoing government support for industrial growth. This report examines the legal and economic implications of China's subsidized steel under WTO rules, the resulting trade challenges, how other countries are responding, and the broader impact on the international trading system.

2. China Subsidies on Steel Industry

2.1. China's Current Steel Subsidy Framework

2.1.1. The Main Subsidy Program for the steel industry

The Ministry of Industry and Information Technology's (MIIT) 2025–2026 work plan serves as the foundation for China's present assistance to the steel sector. The goal of this plan is to modernize the industry's structure while maintaining stability. It plans to close outdated and inefficient factories, promotes

¹⁶ Daniel Birke et al., "Chinese EV Market: Auto Consumer Insights 2025 | McKinsey," China Auto Consumer Insights 2025: Gaining Momentum, accessed October 31, 2025, <https://www.mckinsey.com/industries/automotive-and-assembly/our-insights/china-auto-consumer-insights-2025-gaining-momentum#/>.

¹⁷ Betty Huang and Le Xia, *China | EV Sector: Forging Ahead amid Intensifying Headwinds*, June 27, 2024.

¹⁸ Jiri Opletal, "REPORT China EV Market Situation in First Half of 2025," *CarNewsChina.Com*, July 21, 2025, <https://carnewschina.com/2025/07/21/report-china-ev-market-situation-in-first-half-of-2025/>.

¹⁹ "Solar Photovoltaic (PV) Market | Global Market Analysis Report - 2035," accessed October 31, 2025, <https://www.futuremarketinsights.com/reports/solar-photovoltaic-pv-market>.

²⁰ Chitranshi Jaiswal, "China Photovoltaic Market Size, Growth Report 2035," October 2025, <https://www.marketresearchfuture.com/reports/china-photovoltaic-market-54746>.

greater efficiency, and strives for an annual growth in value-added output of about 4%, while supporting strong and competitive enterprise.²¹

The steel industry is a key focus of China's green transformation to meet its 2030 emission peak and 2060 carbon neutrality goals. Green finance initiatives are also being promoted by financial organizations like MIIT and the National Financial Regulatory Administration (NFRA). For instance, by the end of 2024, Hebei Province, which produces around 11% of the world's steel, secured USD 2.8 billion in transition loans to promote cleaner production.²² The existing initiatives, however, are still insufficient to accomplish a complete green transition, according to Shen²³. Uncertain financial regulations, high costs, and restricted access to cleaner materials continue to challenge many steelmakers. Thus, in order to support the industry's transition to low-carbon production, experts are advocating for greater government action, including more grants, subsidies, and tax incentives.

The OECD claims that China's steel industry subsidies are about ten times greater than those of OECD nations.²⁴ The government uses these subsidies (cash grants, low-interest loans, and tax incentives) to control production, prices, exports, and investments. Under the current Five-Year Plan (2021-2025), substantial funding continues for projects enhancing energy efficiency, emissions reduction, and advanced material development, aligning with the country's carbon goals.

Beyond central government programs, China's provincial governments also play a major role in distributing targeted subsidies and implementing localized initiatives in the steel industry. For example, Jiangxi boost R&D investment; Shanxi consolidate its steel industry; Jiangsu promotes green workforce training; Zhejiang enhances structural steel quality; Hubei and Hunan support shipbuilding and automotive steel projects; Anhui funds high-end stainless steel projects; and Yunnan focuses on reducing excess steel capacity and energy use.

Reflecting these multi-level efforts, OECD data show that government support for China's steel industry fluctuated significantly between 2007 to 2022. It rose from below 2% in 2007 to around 4% in 2009, before declining to 2% in 2012. A sharp increase occurred between 2013 and 2015, when support peaked at over 7%, followed by a drop to below 3% in 2016. Since then, it has remained relatively stable, fluctuating between 3% and 4% through 2022. In contrast, other OECD countries maintained consistently low levels of government support, staying below 1% throughout the same period.

2.1.2. The Government roles in steel productions

The Chinese government plays a key role in steel production through policy formulation, economic incentives and industry coordination. These policies guide investment, innovations, and production strategies while ensuring overall stability. Rather than controlling operations directly, the government

²¹ Xinhua, "China to Support Steel Sector's Steady Operation, Structural Upgrading," September 22, 2025, https://english.www.gov.cn/news/202509/22/content_WS68d0ecf6c6d00fa19f7a29cd.html.

²² Christoph Nedophil, "Analysis - China's Newly Announced Steel Industry Work Plan 2025-26," *Griffith Asia Insights*, September 8, 2025, <https://blogs.griffith.edu.au/asiainsights/analysis-chinas-newly-announced-steel-industry-work-plan-2025-26/>.

²³ Xiaoyan Shen, "Targeted Incentives Key to Accelerating China's Steel Sector...", *Climate Bonds*, September 23, 2025, <https://www.climatebonds.net/news-events/press-room/press-releases/targeted-incentives-key-accelerating-chinas-steel-sector-transition>.

²⁴ *OECD Steel Outlook 2025 (EN)* (n.d.), accessed October 31, 2025, https://www.oecd.org/content/dam/oecd/en/publications/reports/2025/05/oecd-steel-outlook-2025_bf2b6109/28b61a5e-en.pdf.

facilitates collaboration and prevents market failure. While historically more interventionist, recent reforms emphasize balanced oversight to ensure stable innovation outcomes.²⁵

The Steel Action Plan for 2025 - 2026 highlights the government's efforts in industrial stability, modernization, and environmental compliance. The Measurement includes strict capacity control, elimination of outdated facilities and enforcement of production targets. For instance, Anhui cut annual crude steel output by 1 million tonnes and Jiangsu by 6 million tonnes, contributing to the national goal of reducing 50 million tonnes in 2025.²⁶ Modernizations and green transitions are advanced through upgraded technologies, green steel standards, low-carbon processes and integration with the national emissions trading systems. Environmental initiatives focus on ultra-low emissions, hydrogen metallurgy and carbon foot-print tracking, while quality improvements target key sectors such as automotive, machinery, constructions, and household steel.

Finally, the plan aims to stimulate domestic demand through housing and infrastructure projects, steel industrial parks and digital supply chain platforms.²⁷ These coordinated policies show how the Chinese government not only regulates production but also drives modernization, environmental compliance, and market development, paving the way for future discussions on subsidies and financial support.

2.2. Global Implications & Trade Disruptions

A review by Ambaw & Thangavelu shows that since 2008, China's state subsidies have increasingly disrupted trade, peaking around 2016, where this eight-year gap has shown a growth in harmful subsidies while beneficial to the domestic upstream industries, foreign downstream exports took a massive hit weakening their export competitiveness.²⁸ Not only do these state subsidies disrupt pricing mechanisms, they also trigger production shifts weakening foreign competitors in key industries, specifically base metals and steel. These harmful subsidies led to overcapacity in Chinese steel exports, affecting global metal-intensive industries. China's utilization of 5,400 subsidy measures makes it the nation with the largest form of state support.²⁹ According to Rotunno and Ruta, these subsidies reflect shifting industrial priorities toward high-tech sectors such as batteries and electric vehicles under the *Made in China 2025* strategy, which aims to move China from low-cost manufacturer to global innovation leader. Consequently, the measures have strengthened China's global market position and reduced its reliance on foreign inputs, reinforcing a strategy of domestic self-sufficiency.

²⁵ Xueli Huang et al., "The Chinese Steel Industry in Transition: Industry Perspective on Innovation Policy," *R&D Management* 29, no. 1 (1999): 17–25, <https://doi.org/10.1111/1467-9310.00113>.

²⁶ Muflih Hidayat, "China's Strategic Steel Industry Growth Plan 2025-2026," News, *Discovery Alert*, October 3, 2025, <https://discoveryalert.com.au/news/chinas-steel-transformation-2025-growth-strategy/>; Jing Zhang, "China Plans Steel Output Cuts but Production May Rise as Trade Tensions Ease," S&P Global Commodity Insights, May 14, 2025, <https://www.spglobal.com/commodity-insights/en/news-research/latest-news/metals/051425-china-plans-steel-output-cuts-but-production-may-rise-as-trade-tensions-ease>.

²⁷ Gerber Group, *China Presents Steel Action Plan for 2025-2026*, Stainless Espresso, September 23, 2025, <https://steelnews.biz/china-presents-steel-action-plan-for-2025-2026/>.

²⁸ Dessie Tarko Ambaw and Shandre Mugan Thangavelu, "Industrial Subsidies and Impact on Exports of Trading Partners: Case of China," *Review of Development Economics* 26, no. 3 (2022): 1310–37, <https://doi.org/10.1111/rode.12878>.

²⁹ Lorenzo Rotunno and Michele Ruta, "Trade Implications of China's Subsidies," IMF Working Papers, *IMF Working Papers* 2024, no. 180 (2024): 43, <https://doi.org/10.5089/9798400282478.001.A001>.

2.2.1. Economies affected by the influx of Chinese Steel

Nevertheless, China's state subsidies have caused global implications through a one-unit increase in subsidy measures, harming downstream exports (cars, factories, steel-reliant industries), caused by the ripple effect of a 16.6% average drop, most evident in many countries with open economies, such as the United States, EU, Australia, Canada, and Southeast Asia being hit with these harmful subsidies with some countries resorting to relocating production firms to China to benefit from cheaper costs of production and cost advantages opportunities from these subsidies.³⁰

2.2.2. Trade Disruptions Caused by The Subsidies

Another implication could be observed from the alteration of export dynamics. Rotunno and Ruta show that sectors like base metals (Iron, Steel, Copper, Aluminum) and Automotive EVs, subsidies led to higher export quantities and lower export prices, indicating the overcapacity of cheap and high-quality steel spilled into global markets, intensifying competitive pressure amongst these downstream economies (26-28).³¹ On the contrary, sectors such as batteries, electrical machinery, and solar panels experienced both rising export prices and quantities, suggesting that subsidies also fueled quality upgrading and innovation (p.31).

2.2.3. Flooding of Chinese Steel

These effects—market flooding and strategic upgrading—intensified China's trade dominance and triggered defensive measures from affected countries. China's steel exports surged as domestic production outpaced local demand, with state-backed subsidies driving large volumes of low-cost exports that undercut foreign producers and depressed global prices.³² This influx created overcapacity in importing countries and weakened competitiveness in metal-intensive downstream industries, prompting some firms to relocate production to China to access cheaper inputs.³³

2.3. China's Dominance Strategy & Benefits

While subsidies and regulatory frameworks have assisted China in shifting toward advanced technologies and green transformation, they have also resulted in a massive surge in steel production. The recent overflow of Chinese steel has been regarded as one of the most complex and unpredictable strategies implemented by the Chinese government. Through this approach, China maintains stable government intervention while sustaining industrial leadership and export competitiveness.

2.3.1. The underlying causes of the surplus in steel production

The growth of China's steel production from the past few years has shown a significant amount leading the country as the largest steel producer and exporter globally. Despite these conditions, China's domination in steel industrial competition has led China into a steel production overflow. This predicament exceeds domestic and international demands for steel. Global markets and trade organizations have grown concerned about this phenomenon, where it shows imbalance in strategy and structure implemented by

³⁰ Ambaw and Mugan Thangavelu, "Industrial Subsidies and Impact on Exports of Trading Partners."

³¹ Rotunno and Ruta, "Trade Implications of China's Subsidies."

³² Rotunno and Ruta, "Trade Implications of China's Subsidies."

³³ Rotunno and Ruta, "Trade Implications of China's Subsidies."

China's industrial policy. The excessive production is forecasted to rise 67% million metric tonnes (mmt) by 2027 from the combined steel production of OECD countries in 2024.³⁴

China's policy framework has upscaled the steel industry significantly, causing overflow in steel production. The Chinese government's five year plan includes investing 20 trillion yuan to tackle imbalances between supply and demand. Yan Yilong, deputy dean of the Institute for Contemporary China Studies of Tsinghua University, suggests that the early five-year plans primarily focused on economic development, including technological innovation.³⁵ The government support leads provinces to expand steel production by building new facilities for growth in productivity. Financing and giving low-interest loans encourages excessive capacity during peaks of demand.³⁶ The results show how over-financing in local industries has led to unintended over-productions.

2.3.2. An evaluation of the strategic rationale behind these subsidies

The financial subsidies towards technological-based industries can be interpreted as both strategic and structural. China has sustained this strategy long enough to support their industrial and global influence. However, their strategy also covers the pricing power and exporting leverage that they hold. By large-scale, low-cost production, the global prices will be benchmarked as China's supply grows. As price shifts, competition also gives China more competitive advantage. In contrast, their excessive production reflects on how inefficient and limited coordination among their provincial governments. For example, Beijing's policy prioritizes the "supply-side," the production/investment side of the economy rather than "demand side."³⁷ International Services of Shanghai recorded as Liu Min, deputy director of the Shanghai Municipal Commission of Commerce, will implement a supply-side innovation strategy with more precise and effective stimulation to boost consumption.³⁸ China's policy in overproduction is driven by decentralized policies and local protectionism, not purely strategic.

2.3.3. The economic benefits of these subsidies

Recent analysis from Morgan Stanley supports this claim, by observing China's new anti-involution campaign, aimed at reducing excessive competition and gaining pricing power advantage, indicates a structural comeback for years of excessive capacity production and deflationary pressure.³⁹ The supply-side is a milestone for China, sustaining employment, GDP growth, and industrial stability in provinces. This reinforces the interpretation that China's excessive industrial capacity production is still a managed evolution of its growth framework, not an intentional strategy to distort global markets.

³⁴ Margaret Spiegelman, "OECD Projects Rising Global Steel Overcapacity, Distorted Trade | InsideTrade.Com," May 28, 2025, <https://insidetradecom.com/daily-news/oecd-projects-rising-global-steel-overcapacity-distorted-trade>.

³⁵ Xinhua and Ding Haitao, "Explainer: How Do Five-Year Plans Drive China's Comprehensive Development?," March 5, 2025, <https://english.news.cn/20250305/ddc5fe84d09a480ab8233ba6441452c8/c.html>.

³⁶ "China Expected to Adopt More Supportive Fiscal and Monetary Policy, PBOC Adviser Says," Asia Pacific, *Reuters*, October 25, 2025, <https://www.reuters.com/world/asia-pacific/china-expected-adopt-more-supportive-fiscal-monetary-policy-pboc-adviser-says-2025-10-25/>.

³⁷ Jacob Gunter et al., "Beyond Overcapacity: Chinese-Style Modernization and the Clash of Economic Models | Merics," April 1, 2025, <https://merics.org/en/report/beyond-overcapacity-chinese-style-modernization-and-clash-economic-models>.

³⁸ "Shanghai Plans New Policies to Boost Consumption," February 14, 2025, <https://english.shanghai.gov.cn/en-Latest-WhatsNew/20250214/16e8bcb4fd0941e5b0822325aafead14.html>.

³⁹ Laura Wang, Opportunities From China's Policy Shifts, Opportunities From China's Policy Shifts, October 2, 2025, <https://www.morganstanley.com/insights/podcasts/thoughts-on-the-market/china-anti-involution-campaign-laura-wang>.

2.4. International Perspectives & Policy Response

2.4.1. Global Perspective and Responses from the US and EU

With deepening tensions and rising conflicts between trade partners, China's trade relations with other nations have been deeply affected, causing nations to resort to launching investigations into China's subsidiary measures. While some countries have decided to respond by retaliating through increasing tariffs and taxation of Chinese steel imports, other regions have faced the collateral damage of China's subsidies, facing stagnation or a growing alliance for China's cheaper and quality grade steel. This paper will briefly go through how these specific regions have reacted to China's subsidies, whether countries have retaliated against China, shifted their attention to protect their own industries, or realized a change in the order of trade after China acceded to the WTO:

The United States

After Trump's second term win, the America First policy was instituted, reviving trade tension between the US and China despite having been deeply involved in economic partnership in the past. During this time, China was the second fastest-growing economy in the world, providing the US with industrial goods such as semiconductors, Automotive EVs, Critical Minerals, and other products promoting growth in US industries (*U.S.-China Trade Relations*, 2025). The America First Policy imposed 10% tariffs on all Chinese imports; a comprehensive review was included, an overview of trade deficits, recorded tax practices, *de minimis* imports, and other issues related to China's trade behaviors (*U.S.-China Trade Relations*, 2025). Tensions between US-China trade relations have been escalating since 2018, when the United States Trade Representative (USTR) accused China of engaging in unfair trade practices, such as Intellectual property violations and unfair discriminatory trade practices, leading to the US imposing 7.5%-25% tariffs on key industries such as automotive EVs, solar cells, steel, and aluminum. Another instance of increasing trade tensions is during President Trump's imposition of the Trade Expansion Act of 1962, section 232, where Chinese steel faced a 25% tariff increase, while another mineral, aluminum, faced a 10% tariff increase. USTR's intention of increasing tariff rates was to mitigate the effects of China's export subsidies, inciting protection of the US's domestic industries. Recent developments have begun to show in 2025, in reference to the US-China trade agreement, which aims to reduce tariffs and implement policies that safeguard domestic industries. Such an example is China maintaining its control over rare-earth minerals while partially opening its market to US technology firms; these measures have been mutually beneficial to both nations.⁴⁰

European Union

Bickenbach, Dohse, Langhammer, and Liu (2024) have gathered evidence to determine that the EU has felt the brunt of Chinese subsidies through the combination of Quantitative Estimates of Industrial support and OECD Firm-Level analysis taking into account Direct subsidies, R&D support, tax incentives, below market credit, SOEs, and how much Chinese firms receive government support through tax concessions, government grants, and many other avenues how heavily these government subsidy programs impact domestic growth but also affect downstream industries.⁴¹ Bickenbach et al conclude that in

⁴⁰ Infinite, "US-China Trade Deal 2025 Explained."

⁴¹ Frank Bickenbach et al., *EU Concerns About Chinese Subsidies: What the Evidence Suggests*, 59 (2024): 214–21.

comparison to other advanced economies, China's large industrial companies were prominent recipients of government support, nine times more than foreign firms were receiving from their own government, that's excluding other factors such as preferential treatment from public procurement or below-market equity.⁴² The paper glosses over China's subsidies on Automotive EVs and wind turbines; Chinese brands such as BYD and Goldwind were able to dominate domestic markets with their rapid scale production, amassing over 1.6 billion euros in purchase subsidies in 2022 alone, prompting the EU to launch formal investigations of anti-subsidy around 2023-2024 and proposing countervailing duties up to 38.1% on Chinese imports to protect its domestic industries.⁴³ This conclusion has not yet been able to encapsulate the indirect channels for China's subsidies; the recognized factors accounted for are just a small fraction of the "official subsidies" list. Bickenbach notes that "there are various other channels for domestic firms to receive government support that are even harder to quantify." Factors such as tax breaks, below-market credits, and below-market equity have been beneficial to Chinese producers themselves, not limited to these firms alone.⁴⁴ China, in particular, plans to become independent from foreign technology, establishing itself as a key global supplier as it begins to penetrate the EU market. The European Commission has been vocal in its intentions to protect its industries from China's subsidized imports. Although Partial sectors are hesitant about these investigations, as some European firms believe that China serves as a beneficial manufacturing base for them, producing critical goods for the union, therefore, China might retaliate against the EU's trade actions.⁴⁵

2.4.2. Regional Perspective

While the US and EU have provided critical views on how each of these big economies retaliated or mitigated the lasting effects of China's subsidies through an all-out tariff war, or by launching investigations to bring China's subsidies up to legal WTO standards. It is essential to consider the different regional perspectives as these countries have indirectly been affected by not just one type of subsidy, but also other sectors that stagnated development, like agriculture, raw materials, and supply chain tendencies.

Regions within Southeast Asia have faced overcapacity of cheap imports of Chinese goods, and what most policymakers try to prioritize is an equilibrium with welcoming Chinese Imports as they, in turn, bring about economic growth while trying to protect key industries to prevent a spillover onto these countries. Countries like Thailand and Vietnam have launched investigations and anti-dumping duties against Chinese steel to balance out the influx of steel reported in those areas. Indonesia and Malaysia have chosen to utilize tariff restrictions on related imported goods, such as textiles and EVs, to ensure a balance between their domestic relations and supply chains, in which these countries benefit from China. Countries like the Philippines have also decided to instead strengthen their economic relations between the US and Japan as they have acknowledged their poor integration of Chinese supply chains, which makes the country vulnerable to the influx of imported goods from China.⁴⁶

⁴² Bickenbach et al., *EU Concerns About Chinese Subsidies*.

⁴³ Bickenbach et al., *EU Concerns About Chinese Subsidies*.

⁴⁴ Bickenbach et al., *EU Concerns About Chinese Subsidies*.

⁴⁵ Bickenbach et al., *EU Concerns About Chinese Subsidies*.

⁴⁶ Brendan Kelly and Wester, "ASEAN Caught Between China's Export Surge and Global De-Risking | Asia Society," February 19, 2025, <https://asiasociety.org/policy-institute/asean-caught-between-chinas-export-surge-and-global-de-risking>.

Tensions have arisen between China and Canada, Canada is well known for its automotive manufacturing industries, contributing to both manufacturing GDP and trade, yet the unpredictable sales of Chinese EVs imported into the country prompted the nation to take action and impose 25% duties on Chinese steel and aluminum. Zhang Xiaolan and Hu Zixiao, scholars from respected establishments, interpreted China seizing the opportunity of entering Canadian markets with their initiative of a net-zero emissions reduction, with a predicted 30% increase in sales by 2030 due to Canada having no previous restriction on EV imports. Furthermore, Canada retaliated by updating their investment policies, blocking Chinese state-owned companies from buying into sensitive sectors. The aforementioned EVs, batteries, steel, and investments into research and development to prevent foreign interference.⁴⁷

⁴⁷ Michael Kovrig, "China-Canada Relations: High Tariffs and Low Trust," *Open Canada*, July 11, 2025, <https://opencanada.org/china-canada-relations-high-tariffs-and-low-trust/>.

3. Analysis of Comparability with WTO

3.1. Legal framework

China's policies operate within a broader framework of international trade rules, which defines and classifies subsidies according to their potential impact on global markets, including prohibited, actionable and non-actionable subsidies, as well as criteria to evaluate them ranging from adverse effects to specificity.

3.1.1. Types of subsidies

According to Yagay and Sun (2025) The Agreement on Subsidies and Countervailing Measures (SCM Agreement), one of the core agreements under the World Trade Organization (WTO), regulates government support that may distort international trade. It defines a *subsidy* as a financial contribution by a government or public body that confers a benefit to a recipient and is specific to an enterprise, industry, or group of industries.⁴⁸ The SCM Agreement classifies subsidies into three main categories, which consist of Prohibited Subsidies (Article 3), such as export and import substitutions subsidies, are banned due to their trade-distorting effects. Actionable Subsidies (Article 5) are allowed but can be challenged if they harm other WTO members through market disruption or unfair competition. Non-actionable Subsidies (Article 8), once permitted for public interest purposes like R&D or environmental protection, expired in 2001 and are no longer valid.

In practical terms, subsidies may take various forms such as direct grants, tax incentives, preferential loans, government equity participation, energy and raw material assistance, or the provision of goods and services below market value.⁴⁹ These mechanisms allow governments to reduce production costs or raise producer incomes beyond market conditions, thereby influencing competitiveness in global markets.

3.1.2. Criteria to evaluate adverse effects and specificity.

Under Article 2 of the WTO Agreement on Subsidies and Countervailing Measures (SCM Agreement), a subsidy must be specific to be considered actionable or prohibited. Specificity determines whether the subsidy benefits a particular enterprise, industry, or region, rather than being broadly available across the entire economy. This ensures that only subsidies with targeted advantages are subject to countervailing measures.

The SCM Agreement recognizes three forms of subsidy specificity. De Jure Specificity occurs when a law or regulations explicitly limits a subsidy to certain enterprises or industries. De Facto Specificity arises when a subsidy, though broadly available in theory, mainly benefits a few industries, assessed by factors such as the number of beneficiaries, concentration of benefits, size of subsidies, and government discretion in allocation. Regional specificity applies when subsidies are restricted to enterprises in certain geographic areas rather than being available nationwide.

⁴⁸ Yagay and Sun, "Agreement on Subsidies and Countervailing Measures (SCM Agreement)," TaxTMI, accessed October 31, 2025, <https://www.taxtmi.com/article/detailed?id=14689>.

⁴⁹ Gerd Schwartz and Benedict Clements, "Government Subsidies," *Journal of Economic Surveys* 13, no. 2 (1999): 119–48, <https://doi.org/10.1111/1467-6419.00079>.

In essence, the specificity test functions as a screening mechanism to separate broadly applied economic measures (which are non-actionable) from targeted government interventions that distort competition. Determining specificity relies on positive evidence, often based on the distribution of benefits and the structure of the subsidy program.⁵⁰

Once a subsidy is deemed specific, it must be evaluated for adverse effects to determine if it is actionable under WTO rules. According to the SCM Agreement (Cambridge University, 2017), Article 5 prohibits subsidies that harm other members, identifying three types of adverse effects: Injury to another member's domestic industry, where subsidized exports cause actual harm; nullification or impairment of GATT benefits, where the subsidy undermines rights under GATT 1994; and serious prejudice, where the subsidy displaces exports or significantly disturbs trade patterns of another member.⁵¹

These three types of adverse effects are assessed differently depending on the context: injury focuses on the importing country's domestic industry, while serious prejudice considers broader impacts on trade flows and market access. This framework ensures that only subsidies that demonstrably harm other Members' interests are actionable.

3.2. Legal Implications and Challenges

The Agreement on Subsidies and Countervailing Measures (SCM Agreement) has significantly benefited China by allowing it to subsidize domestic industries and strengthen its comparative advantage. While these measures are intended to promote modernization, they cross the line when such subsidies begin to distort or harm the global market. To address this, the WTO framework could be redesigned to better account for China's state-led economic model by establishing a more adaptive and responsive policy structure.

3.2.1. How subsidies distort global steel markets and impact competitors

Subsidies and state support have significantly distorted the global steel market. The Chinese government has continuously infused financial support into its steel industry up to RMB 30 billion or approximately USD 4.2 billion in direct bailouts, debt-to-equity swaps, and loan guarantees for a single firm.⁵² The Tianjin Steel Pipe Group (TPCO Group) also received some interest rate reductions, maturity extensions, etc, which does not appear to be publicly available, as stated in the report. TPCO Group, from 2016 to 2023, has sustained a state subsidization that is expected to persist within China's policy frameworks. According to a 2019 OECD report between 2008 and 2020, steel firms in non-OECD economies (including China) receive 10.7 times more subsidies on average than in OECD countries through cash grants, cash awards, and tax refunds.⁵³ These supports protect producers from debt pressure, enabling persistent overproduction with underpriced steel exports is considered as not a prohibited but an actionable subsidy (a violation of WTO's "adverse effect" clause, Article 5).

⁵⁰ "URAA: Agreement on Subsidies and Countervailing Measures," accessed October 31, 2025, <https://enforcement.trade.gov/regs/uraa/saa-cv.html>.

⁵¹ "Adverse Effects," in *WTO Agreement on Subsidies and Countervailing Measures: A Commentary*, ed. Wolfgang Müller (Cambridge University Press, 2017), <https://doi.org/10.1017/9781108277549.007>.

⁵² Alan H Price et al., *Shell Game: Case Studies in Chinese Steel Subsidies*, 2024.

⁵³ Jehan Sauvage, *Measuring Distortions in International Markets*, November 21, 2019.

Because steel is not accurately valued within China’s domestic market, manufacturers are able to export products abroad at prices significantly lower than global market averages. This persistent underpricing occurs alongside substantial financial support provided by the Chinese government to domestic firms. While these subsidies are officially framed as measures to support employment and industrial modernization, they have produced considerable distortions in international markets. Through state assistance such as preferential financing, energy-cost relief, and debt restructuring, Chinese producers can maintain profitability while offering exports at discounted rates. To further measure the deviation of the subsidized export margin, the calculation below will help us determine the subsidized margin expressed in percentage

$$\text{Subsidized Margin (\%)} = \frac{\text{Normal Value} - \text{Subsidized Export Price}}{\text{Normal Value}} \times 100$$

The degree of distortion can be demonstrated through price differentials. For instance, if global benchmark steel prices average around USD 700 per tonne, but Chinese exports are sold at approximately USD 560 per tonne, this represents a 20% underpricing margin. Given China’s steel exports exceeding 90 million tonnes in 2023, even such a margin translates into billions of dollars’ worth of underpriced steel entering international markets. This sustained intervention not only depresses global prices but also undermines the competitiveness of steel producers in other economies, leading to imbalances in global trade flows.

3.2.2. Case examples: WTO disputes, countervailing measures by the US/EU

The WTO has sought to stabilize the steel market in the US and EU. In line with this effort, the European Commission (2025) argues that recent trade policy adjustments aim to counter global overcapacity by tightening import safeguards and reducing the liberalization rate from 1% to 0.1%.⁵⁴ Similarly, as a response to China’s significant steel subsidies resulting in price suppression, the US government composed countervailing duties and higher Section 301 and 232 tariffs.⁵⁵ By raising tariffs with effective rates on Chinese steel imports to almost 47.5%, it neutralizes the adverse effects of China’s state-led interventions.

3.3. China WTO status policy flexibilities

Revisiting China’s accession into the WTO, its disputed “developing country” status has sparked controversies among WTO members, as while it is related to its entry into the international organization, a lack of responsibility sets a precedent for China’s current behaviors in the multilateral trading system, supposedly pioneering the golden standard upholding WTO obligations post accession. Does this pose a problem for its member states and the WTO itself? It is understood that the self-declaration of developing and developed country labels is self-imposed; however, this process of self-designation has been treated as a global grievance. Li and Tu (2018) viewed China’s entry as a “milestone of China’s remarkable success

⁵⁴ Directorate-General for Trade and Economic Security, “Commission Strengthens Protection for EU Steel Industry - Trade and Economic Security,” accessed October 31, 2025, https://policy.trade.ec.europa.eu/news/commission-strengthens-protection-eu-steel-industry-2025-03-25_en.

⁵⁵ David E. Bond et al., “Biden Administration Announces New Measures to Protect US Steel, Aluminum, and Shipbuilding Industries | White & Case LLP,” April 19, 2024, <https://www.whitecase.com/insight-alert/biden-administration-announces-new-measures-protect-us-steel-aluminum-and>.

in the integration into the multilateral trading system.”⁵⁶ Hu (2019) describes this developing status as valid within the sphere of China's unconventional economic characteristics, which made its “developing status” uncontested yet concerning due to the lack of transparency.⁵⁷ Hopewell (2021) generally believes that this status has caused harm to actual developing countries and that its claim to Special and Differential treatment has undermined global development, preventing the WTO from ensuring proper policy reforms for state accountability.⁵⁸ China’s strategic leverage will be examined alongside how these measures have coincided with WTO agreements, with concerns on the nation’s transparency, accountability, and fairness in the implementation of China’s obligations to the WTO and the adequacy of the international organization in the enforcement of these policies on the particular country.

3.3.1. China’s “developing country” status under the WTO.

3.3.1.1. Self Designation of Developing Status (Strategic Use)

Hu (2019) notes the definition of a nation to consider itself as a “developing” nation within the context of the WTO framework; he adds that the members “self-designate” this position onto themselves, with the caveat that other member countries can challenge that imposition.⁵⁹ Given this, the WTO has only defined what special treatment and leeway are given to the “developing” nation, rather than expounding on the status and the determinants of the status. Additionally, throughout China’s membership in the WTO, the state generally enjoyed special treatment under the developing status, utilizing the transition periods for implementation of WTO policies and taking on rather basic obligations that allowed it to become an emerging economy, the second-largest economy, while continuing to don the developing status.⁶⁰

3.3.1.2. SDT provisions and their Scope

Li and Tu (2018) and Hu (2021) share similar sentiments regarding China’s entry in the WTO, linking its self-declared developing country status to the unique “Chinese characteristics” of its economy at the time.⁶¹ China’s economic framework resembled a socialist market economy, as it was transitioning from a centrally planned socialist model toward a market-oriented system. During the implementation of WTO rules; its entry required China to take on WTO-plus commitments with an emphasis on transparency and special reviews upon its new obligations beyond those of many developing countries, reflecting a negotiated accommodation of China’s socialist market characteristics into the

⁵⁶ Siqi Li and Xinquan Tu, “Impact of Chinese Characteristics on the World Trade Organization: Challenges and Strategies,” *China & World Economy* 26, no. 2 (2018): 107–26, <https://doi.org/10.1111/cwe.12239>.

⁵⁷ Weinian Hu, *China as a WTO Developing Member, Is It a Problem?*, n.d.

⁵⁸ “Hopewell_ The Impact of China’s Trade Policies on Global Development.Pdf,” n.d., accessed October 31, 2025, https://chinafellowship.wilsoncenter.org/sites/default/files/media/uploads/documents/Hopewell_The%20Impact%20of%20China%27s%20Trade%20Policies%20on%20Global%20Development.pdf.

⁵⁹ Hu, *China as a WTO Developing Member, Is It a Problem?*

⁶⁰ “Hopewell_ The Impact of China’s Trade Policies on Global Development.Pdf.”

⁶¹ Li and Tu, “Impact of Chinese Characteristics on the World Trade Organization”; Hu, *China as a WTO Developing Member, Is It a Problem?*

WTO legal framework.⁶² Although China did not claim full Special and Differential Treatment (SDT) benefits at the time of its accession, its developing country status has remained the key point for how the country engages in the multilateral trading system. Hu (2019) notes China's accession protocol did not seek special treatment through the SDT, as its unique economic characteristics and WTO-plus obligations prevented China from taking on the same approach as other developing countries to obtain SDT.⁶³ These obligations included transparency requirements, transitional reviews, and translation of foreign trade laws into specific WTO languages. China has still persisted to invoke its developing status in varying negotiations, requesting leniency and flexibility in their obligations, aligning itself alongside other developing countries. Hopewell (2021) views this position, believing China's persistence in unconditional SDT rights obstructs initiatives for global subsidy reforms, undermining the interests of developing countries and least developed countries (LDCs).⁶⁴ China's claim for SDT has been contested, as its observable economic rise shows strategic movement to justify its need for special treatment, committing to lesser and more intrusive WTO disciplines. After reviewing China's position on its use of SDT, the paper will now go over the provisions for Special and Differential Treatment in the WTO according to the official text, accompanied by related WTO agreements in relation to the proceedings for Special and Differential Treatment:

Special and Differential Treatment Provisions in WTO agreements and decisions Article 1.5: The S&D provisions in this updated compilation have been classified according to the typology developed by the Secretariat in 2001. This six-fold typology has been retained and includes (*WTO | Development - Special and Differential Treatment Provisions, 2019*):

1. Provisions aimed at increasing the trade opportunities of developing country members;
 - **GATT Article XXXVI 1(a):** *Accord high priority to the reduction and elimination of barriers to products currently or potentially of particular export interest to less-developed contracting parties, including customs duties and other restrictions which differentiate unreasonable between such products in their primary and in their processed forms. As outlined in ARTICLE XXXVII COMMITMENTS. "*
2. Provisions under which WTO Members should safeguard the interests of developing country Members;
 - **Agreement on Safeguard IX.1:** *Safeguard measures shall not be applied against a product originating in a developing country Member as long as its share of imports of the product concerned in the importing Member does not exceed 3 per cent, provided that developing country Members with less than 3 per cent import*

⁶² Li and Tu, "Impact of Chinese Characteristics on the World Trade Organization"; Hu, *China as a WTO Developing Member, Is It a Problem?*

⁶³ Hu, *China as a WTO Developing Member, Is It a Problem?*

⁶⁴ "Hopewell_The Impact of China's Trade Policies on Global Development.Pdf."

share collectively account for not more than 9 per cent of total imports of the product concerned.

3. Flexibility of commitments, of action, and use of policy instruments

- **Article 27 of the Agreement on Subsidies and Countervailing Measures 27.4:** *Any developing country Member referred to in paragraph 2(b) shall phase out its export subsidies within the eight years, preferably in a progressive manner. However, a developing country Member shall not increase the level of its export subsidies⁵⁴, and shall eliminate them within a period shorter than that provided for in this paragraph when the use of such export subsidies is inconsistent with its development needs. As detailed in Article 27 of the SCM Agreement.*

4. Transitional time-periods;

- **Article on Trade Facilitation Section 2; 1.2:** *Each Member shall, to the extent practicable and in a manner consistent with its domestic law and legal system, ensure that new or amended laws and regulations of general application related to the movement, release, and clearance of goods, including goods in transit, are published or information on them made otherwise publicly available, as early as possible before their entry into force, in order to enable traders and other interested parties to become acquainted with them.*

5. Technical Assistance;

- **Article on Trade Facilitation Section 21 1.1:** *Donor Members agree to facilitate the provision of assistance and support for capacity building to developing country and least-developed country Members on mutually agreed terms either bilaterally or through the appropriate international organizations.*

6. Provisions relating to LDC Members

- **Article on Trade Facilitation Section 21 1.2:** *Given the special needs of least-developed country Members, targeted assistance and support should be provided to the least-developed country Members so as to help them build sustainable capacity to implement their commitments.*

4. Negotiations Strategy and analysis

According to Price (2006) on the paper of Government subsidies of the Chinese steel industry and its consequences mention that subsidies are classified as prohibited or actionable based on export contingencies or adverse effects on other members.⁶⁵ Most of China's steel subsidies are actionable, involving financial support, specific benefits and potential harm to global competitors. The government provides these subsidies through:

⁶⁵ "Microsoft Word - Alan Price - Prepared Remarks.DOC," n.d., accessed October 31, 2025, https://www.uscc.gov/sites/default/files/06_04_04_price.pdf.

1. Direct Financial Support

- Cash grants: Provided to steel producers, even unprofitable ones, despite WTO commitments.
- Debt-for-equity swaps: State-owned banks convert unpaid loans into equity. For example, \$7 billion across 37 firms in 2000.
- Debt forgiveness and inaction on non-performing loans: Provincial governments, like Heilongjiang, write off billions of loans; \$800 billion in non-performing loans remains unresolved.

2. Export and Trade Measures

- Export performance benefits: Tax credits and grants are given for high exporters, which are prohibited under WTO rules.
- Import barriers and foreign investment restrictions: High tariffs, licensing restrictions, and limits on foreign ownership limits protect domestic producers.

3. Market Control Mechanisms

- Preferential loans and directed credit: The government instructs state-owned banks to lend to steel companies on non-commercial terms.
- Energy and raw material grants: Subsidized coking coal, iron ore and other inputs.
- Control over raw material prices and currency manipulation: Export restrictions and keeping the RMB undervalued effectively lower domestic costs and make exports more competitive.

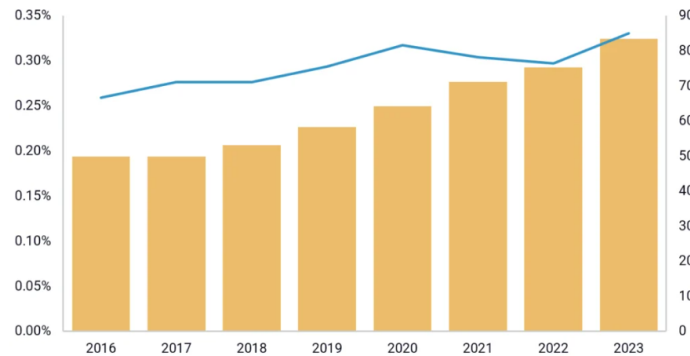
4. Ownership and Consolidation Support

- Transfers of ownership: Provincial governments transfer stakes between state-owned steel companies at below-market or no cost. For example, Hubei Province transferred a 51% stake in Ercheng Iron & Steel to Wuhan Iron and Steel for free in 2005.

The Chinese government supports its steel industry through a variety of subsidies, ranging from direct financial grants and debt-for-equity swaps to export incentives and market control measures. Most of these subsidies meet the criteria of actionable subsidies under the WTO Agreement on subsidies and countervailing measures, as they provide industry specific benefits and can negatively affect competitors. Figure 1 below illustrates the total grants reported by Chinese steel companies as a share of GDP, showing a steady increase over time, reflecting the persistence and scale of government support.⁶⁶

⁶⁶ Camille Bullenois et al., “Far From Normal: An Augmented Assessment of China’s State Support,” March 17, 2025, <https://rhg.com/research/far-from-normal-an-augmented-assessment-of-chinas-state-support/>.

Sum of grants reported by Chinese listed companies as a share of Chinese GDP (left), and average grants to listed firms (right)
Percent (line, left), million RMB (bars, right)



The rising trend shows that government support has not only persisted but increased, boosting the competitiveness of domestic steel producers and reinforcing China's global dominance. These financial contributions qualify as actionable subsidies, providing industry-specific benefits and potentially harming competitors. Direct support, such as cash grants and debt-for-equity swaps, helps steel companies maintain operations and expand capacity even when unprofitable. Export contingent subsidies, preferential loans, energy grants, currency manipulations and provincial ownership transfer further lower production costs and consolidate market power domestically and internationally.

Given the scale and persistence of these subsidies and their impacts on global markets, it becomes essential to consider strategies for aligning China's support with fair trade practices and WTO regulations. To ensure fair trade and reduce actionable subsidies, China should allocate support in terms of financial contributions transparently based on clear criteria like efficiency, R&D and environmental compliance. Subsidies should be diversified across industries, not just steel and focus on domestic modernizations rather than export contingent measures. Improving transparency and gradually reducing preferential loans and ownership transfers can promote competitiveness, sustainable growth and compliance with WTO rules.

Going forward, China's position within the Multilateral trade system could be described as a strategic exploitation of actionable subsidies, promoting trade-distorting practices across trade partners, posing significant long-term risks to global trade stability. China's actionable subsidies on base metals such as steel, aluminum, and their automotive components are not completely illegal to a certain extent due to WTO's opaque ruling on what type of subsidy is China's permissible; however, Bickenbach et al (2024) notes hidden factors in quantifying the sources and channels these domestic and foreign firms may be receiving government support.⁶⁷ Therefore, China's industrial subsidies have many forms of entry into these critical industries, undermining fair competition with contracting parties of the WTO. As Rotunno and Ruta (2024) demonstrate, these subsidies are what increased China's export volumes, creating cheaper prices and more preferable metal products to capital-intensive industries that use these materials. This results in global overcapacity and price instability where trading partners are left to retaliate and protect their own industries as the US and EU promote retaliatory tariffs on steel products, resorting to trade disputes and policy revisions enacting their displeasure with China's government subsidies. These scholars

⁶⁷ Bickenbach et al., EU Concerns About Chinese Subsidies.

recognized how these actionable subsidies caused a spillover effect with upstream industries onto developed downstream sectors amplifying China's export competitiveness through input-output linkages happening due to a force multiplier effect.⁶⁸

An overview of China's trade practices from its accession to China's economic rise, these subsidies have not gone unnoticed. The OECD (2019) estimates that over half of the 70\$ billion in subsidies provided to the world's largest aluminum firms between 2013-2017 transitioned to Chinese companies such as China Hongqiao, Chalco, and SPIC. The OECD (2019) has also highlighted that, compared to other domestic steel companies in China, larger support has been discovered and distributed across other regions where branches for these companies have been located in countries such as Brazil, Canada, Qatar, and Saudi Arabia. Robert Atkinson (2013) cites Haley & Haley (2013) in *The Breakthrough Institute*, highlighting the opacity of China's subsidy regime with its inclusion of energy subsidies reaching \$15.7 billion in 2007 for the steel sector, which is a 3,800% increase from 2000.⁶⁹ These findings underscore the scale and China's strategic position in industrial policy, in which this behavior risks triggering a global subsidy race, with other nations resorting to protectionist measures, which free trade tries to demolish.⁷⁰

These trends threaten the credibility and enforceability of WTO mechanisms, particularly since China's WTO accession was seen as a step toward institutional convergence with advanced economies (Sachs & Woo, 2003). To restore the trust and competence of the WTO, WTO policy makers should pursue these complementary measures:

1. Tightening subsidy transparency and reporting standards at the WTO including mandatory disclosure of state-owned enterprise support and cross-border subsidy channels.⁷¹
2. Narrow the scope for misuse of Special and Differential Treatment by establishing clear, time-bounded goals for developing country flexibility tying SDT privileges to demonstrable transparency.⁷²
3. Coordinate targeted defensive measures- such as strengthened anti-subsidy investigations and formalized tariffs alongside an improved multilateral dispute settlement to deter strategic subsidization while minimizing protectionist spillovers.⁷³

All in all, these potential solutions would improve the enforceability of WTO obligations and responsibilities, reduce incentives for firm relocation, and help preserve the validity of the rules-based trading system.

⁶⁸ Rotunno and Ruta, "Trade Implications of China's Subsidies"; Ambaw and Mugan Thangavelu, "Industrial Subsidies and Impact on Exports of Trading Partners."

⁶⁹ Usha C.V. Haley and George T. Haley, *Subsidies to Chinese Industry: State Capitalism, Business Strategy, and Trade Policy* (Oxford University Press, 2013), <https://doi.org/10.1093/acprof:oso/9780199773749.001.0001>; Atkinson, "The Explosive Rise of Subsidies to Chinese Industry."

⁷⁰ Trewin et al., "'It's You, Not Me.'"

⁷¹ "Hopewell_ The Impact of China's Trade Policies on Global Development.Pdf."

⁷² Hu, China as a WTO Developing Member, Is It a Problem?

⁷³ Rotunno and Ruta, "Trade Implications of China's Subsidies"; Ambaw and Mugan Thangavelu, "Industrial Subsidies and Impact on Exports of Trading Partners."

5. Conclusions

At present, China's entry into the WTO in 2001 has been at the beginning widely supported by previous WTO members, although it had to undergo deep economic reforms due to its unique characteristics within its financial framework before entry. Conversely, China's timeline emerging into an export-oriented model country has been a controversy in its own right, from its developing status to the excessive amount of industrial subsidies sourced from various channels into its domestic firms. While beneficial to China's domestic economy, there is an imminent threat of disrupting the trade order due to the overcapacity of China's subsidized influx of steel. This leads to China's trading partners resorting to retaliating against the spillover of Chinese steel by administering countervailing duties among downstream economies, prompting countries to launch anti-dumping investigations on critical industries in both China's domestic and foreign firms, and raising these violations to the WTO with hopes of stabilizing China's trade behaviors. As most subsidies were allocated to several critical industries, the most harmful subsidies were found to be within the Steel Industry, where most government subsidies are given to local firms and SOEs, boosting production in steel in upstream industries, which their trade partners rely on.

Despite this, the WTO ruling categorizes China's industrial subsidies as actionable because, under the requirements for actionable subsidies, there has to be a direct transfer of funds to the firms through monetary support of any form, including the specificity of industry. In this case, China's steel industry fits within this criterion, observing the past trends from 2016-2018, which have grown tenfold in how firms and industries rely on government subsidies compared to other OECD countries and trade partners. Therefore, the rules-based system of the WTO must be able to reinforce its policies on what constitutes a developing country, if said developing country is fit to receive the preferential treatment, and how the WTO should create a more exhaustive mechanism that measures and locates how much subsidy a government is giving to its firms, whether through official channels or with the approval of WTO representatives through negotiations. China should also take the initiative to regulate its trade practices upon its entry into the WTO. There come obligations that an emerging economy like China has to uphold alongside the commitments to showing transparency regarding the allocation of subsidies among its industries. If China wants to become a model-pioneer in global trade working alongside the WTO as a "developing country" to participate as effectively as China does in the current rules-based system.

Bibliography

Ambaw, Dessie Tarko, and Shandre Mugan Thangavelu. "Industrial Subsidies and Impact on Exports of Trading Partners: Case of China." *Review of Development Economics* 26, no. 3 (2022): 1310–37. <https://doi.org/10.1111/rode.12878>.

Atkinson, Robert. "The Explosive Rise of Subsidies to Chinese Industry." The Breakthrough Institute, November 24, 2013. <https://thebreakthrough.org/articles/the-explosive-rise-of-subsidies-to-chinese-industry>.

Basson. "World Steel in Figures 2025." *Worldsteel.Org*, n.d. Accessed October 31, 2025. <https://worldsteel.org/data/world-steel-in-figures/world-steel-in-figures-2025/>.

Bickenbach, Frank, Dirk Dohse, Rolf J. Langhammer, and Wan-Hsin Liu. *EU Concerns About Chinese Subsidies: What the Evidence Suggests*. 59 (2024): 214–21.

Birke, Daniel, Mingyun Guan, and Thomas Fang. "Chinese EV Market: Auto Consumer Insights 2025 | McKinsey." China Auto Consumer Insights 2025: Gaining Momentum. Accessed October 31, 2025. https://www.mckinsey.com/industries/automotive-and-assembly/our-insights/china-auto-consumer-insights-2025-gaining-momentum#.

Directorate-General for Trade and Economic Security. "Commission Strengthens Protection for EU Steel Industry - Trade and Economic Security." Accessed October 31, 2025. https://policy.trade.ec.europa.eu/news/commission-strengthens-protection-eu-steel-industry-2025-03-25_en.

Drewry. "Contradictions in Steel Market: Implications of China's Export Expansion." January 15, 2025. <https://www.drewry.co.uk/maritime-research-opinion-browser/maritime-research-opinions/contradictions-in-steel-market-implications-of-chinas-expansion-in-exports>.

E. Bond, David, Gregory Spak, Miguel Mayorga, and Saccomanno. "Biden Administration Announces New Measures to Protect US Steel, Aluminum, and Shipbuilding Industries | White & Case LLP." April 19, 2024. <https://www.whitecase.com/insight-alert/biden-administration-announces-new-measures-protect-us-steel-aluminum-and>.

Ethan, Helen. "The Rise of China's Steel Industry: A Global Powerhouse in the Making." Made-in-China.Com, September 13, 2024. https://insights.made-in-china.com/The-Rise-of-China-s-Steel-Industry-A-Global-Powerhouse-in-the-Making_JTGfFCwKgElz.html.

Group, Gerber. *China Presents Steel Action Plan for 2025-2026*. Stainless Espresso. September 23, 2025. <https://steelnews.biz/china-presents-steel-action-plan-for-2025-2026/>.

Gunter, Jacob, Alexander Brown, François Chimits, Antonia Hmadi, Abigaël Vasselier, and Zenglein. "Beyond Overcapacity: Chinese-Style Modernization and the Clash of Economic Models | Merics." April 1, 2025. <https://merics.org/en/report/beyond-overcapacity-chinese-style-modernization-and-clash-economic-models>.

Hidayat, Muflih. "China's Strategic Steel Industry Growth Plan 2025-2026." News. *Discovery Alert*, October 3, 2025. <https://discoveryalert.com.au/news/chinas-steel-transformation-2025-growth-strategy/>.

"Hopewell_The Impact of China's Trade Policies on Global Development.Pdf." n.d. Accessed October 31, 2025. https://chinafellowship.wilsoncenter.org/sites/default/files/media/uploads/documents/Hopewell_The%20Impact%20of%20China%27s%20Trade%20Policies%20on%20Global%20Development.pdf.

Hu, Weinian. *China as a WTO Developing Member, Is It a Problem?* n.d.

Huang, Betty, and Le Xia. *China | EV Sector: Forging Ahead amid Intensifying Headwinds*. June 27, 2024.

Huang, Xueli, Bill Schroder, and Paul Steffens. "The Chinese Steel Industry in Transition: Industry Perspective on Innovation Policy." *R&D Management* 29, no. 1 (1999): 17–25. <https://doi.org/10.1111/1467-9310.00113>.

Infinite. "US-China Trade Deal 2025 Explained: Impact on Exports, Imports & Tariffs." Infinite, June 30, 2025. <https://www.tradeimex.in/blogs/us-china-trade-deal-2025-impact-on-exports-imports-tariffs>.

Jaiswal, Chitranshi. "China Photovoltaic Market Size, Growth Report 2035." October 2025. <https://www.marketresearchfuture.com/reports/china-photovoltaic-market-54746>.

Kelly, Brendan, and Wester. "ASEAN Caught Between China's Export Surge and Global De-Risking | Asia Society." February 19, 2025. <https://asiasociety.org/policy-institute/asean-caught-between-chinas-export-surge-and-global-de-risking>.

Kovrig, Michael. "China-Canada Relations: High Tariffs and Low Trust." *Open Canada*, July 11, 2025. <https://opencanada.org/china-canada-relations-high-tariffs-and-low-trust/>.

Li, Siqi, and Xinquan Tu. "Impact of Chinese Characteristics on the World Trade Organization: Challenges and Strategies." *China & World Economy* 26, no. 2 (2018): 107–26. <https://doi.org/10.1111/cwe.12239>.

Müller, Wolfgang, ed. "Adverse Effects." In *WTO Agreement on Subsidies and Countervailing Measures: A Commentary*. Cambridge University Press, 2017. <https://doi.org/10.1017/9781108277549.007>.

Nedophil, Christoph. "Analysis - China's Newly Announced Steel Industry Work Plan 2025-26." *Griffith Asia Insights*, September 8, 2025. <https://blogs.griffith.edu.au/asiainsights/analysis-chinas-newly-announced-steel-industry-work-plan-2025-26/>.

OECD. "The Drivers and Impacts of Subsidies to Steel Firms." *OECD Science, Technology and Industry Policy Papers*, ahead of print, OECD Publishing, October 8, 2025. <https://doi.org/10.1787/33e4b097-en>.

OECD Steel Outlook 2025 (EN). n.d. Accessed October 31, 2025. https://www.oecd.org/content/dam/oecd/en/publications/reports/2025/05/oecd-steel-outlook-2025_bf2b6109/28b61a5e-en.pdf.

Opletal, Jiri. "REPORT China EV Market Situation in First Half of 2025." *CarNewsChina.Com*, July 21, 2025. <https://carnewschina.com/2025/07/21/report-china-ev-market-situation-in-first-half-of-2025/>.

Price, Alan H, Robert E DeFrancesco, and Adam M Teslik. *Shell Game: Case Studies in Chinese Steel Subsidies*. 2024.

Qiao, Yufeng, and Guang Wang. "Recent Status of Production, Administration Policies, and Low-Carbon Technology Development of China's Steel Industry." *Metals* 14, no. 4 (2024): 480. <https://doi.org/10.3390/met14040480>.

Reuters. "China Expected to Adopt More Supportive Fiscal and Monetary Policy, PBOC Adviser Says." Asia Pacific. October 25, 2025. <https://www.reuters.com/world/asia-pacific/china-expected-adopt-more-supportive-fiscal-monetary-policy-pboc-adviser-says-2025-10-25/>.

Rotunno, Lorenzo, and Michele Ruta. "Trade Implications of China's Subsidies." IMF Working Papers. *IMF Working Papers* 2024, no. 180 (2024): 43. <https://doi.org/10.5089/9798400282478.001.A001>.

Sachs, Jeffrey D, and Wing Thye Woo. *China's Economic Growth After WTO Membership*. September 19, 2002.

Sauvage, Jehan. *Measuring Distortions in International Markets*. November 21, 2019.

Schwartz, Gerd, and Benedict Clements. "Government Subsidies." *Journal of Economic Surveys* 13, no. 2 (1999): 119–48. <https://doi.org/10.1111/1467-6419.00079>.

Shen, Xiaoyan. "Targeted Incentives Key to Accelerating China's Steel Sector...." *Climate Bonds*, September 23, 2025. <https://www.climatebonds.net/news-events/press-room/press-releases/targeted-incentives-key-accelerating-chinas-steel-sector-transition>.

"Solar Photovoltaic (PV) Market | Global Market Analysis Report - 2035." Accessed October 31, 2025. <https://www.futuremarketinsights.com/reports/solar-photovoltaic-pv-market>.

Spiegelman, Margaret. "OECD Projects Rising Global Steel Overcapacity, Distorted Trade | InsideTrade.Com." May 28, 2025. <https://insidetrade.com/daily-news/oecd-projects-rising-global-steel-overcapacity-distorted-trade>.

Trewin, Nikki, Daiki Sato, and Lu. "'It's You, Not Me': China's Subsidies and Global Trade Tensions." *Australian Institute of International Affairs*, October 21, 2024. <https://www.internationalaffairs.org.au/australianoutlook/its-you-not-me-chinas-subsidies-and-global-trade-tensions/>.

"URAA: Agreement on Subsidies and Countervailing Measures." Accessed October 31, 2025. <https://enforcement.trade.gov/regs/uraa/saa-cv.html>.

"WTO | Development - Special and Differential Treatment Provisions." Accessed October 31, 2025. https://www.wto.org/english/tratop_e/devel_e/dev_special_differential_provisions_e.htm#legal_provisions.

Xinhua. "China to Support Steel Sector's Steady Operation, Structural Upgrading." September 22, 2025. https://english.www.gov.cn/news/202509/22/content_WS68d0ecf6c6d00fa19f7a29cd.html.

Xinhua, and Ding Haitao. "Explainer: How Do Five-Year Plans Drive China's Comprehensive Development?" March 5, 2025. <https://english.news.cn/20250305/ddc5fe84d09a480ab8233ba6441452c8/c.html>.

Yagay and Sun. "Agreement on Subsidies and Countervailing Measures (SCM Agreement)." TaxTMI. Accessed October 31, 2025. <https://www.taxtmi.com/article/detailed?id=14689>.

Zadeh. "China's Semi-Finished Steel Exports Surge 320% in 2025." News. *Discovery Alert*, August 26, 2025. <https://discoveryalert.com.au/news/chinas-steel-export-strategy-evolution-2025-semi-finished/>.

Zhang, Jing. "China Plans Steel Output Cuts but Production May Rise as Trade Tensions Ease." S&P Global Commodity Insights, May 14, 2025. <https://www.spglobal.com/commodity-insights/en/news-research/latest-news/metals/051425-china-plans-steel-output-cuts-but-production-may-rise-as-trade-tensions-ease>. e-tensions-ease.