



Energy Transition and International Trade Law in the Twenty-First Century: A Case Study of the China–EU Electric Vehicle Dispute

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Abstract. This article examines the institutional challenges facing current WTO subsidy rules in the era of green industrial competition, using the 2024 China–EU electric vehicle countervailing dispute as its central case study. While the European Union's imposition of definitive duties on Chinese battery electric vehicles reflects conventional trade-remedy logic, the dispute reveals a deeper structural deficiency: the SCM Agreement continues to treat trade distortion as the sole core criterion for subsidy legality while lacking an independent evaluative framework for environmental objectives. The article argues that subsidies with a clear environmental orientation, demonstrable environmental effects, and no linkage to export performance, local-content requirements, or import substitution should receive conditional special protection, even where they produce some trade-distorting effects. It proposes four operational criteria for identifying protected green subsidies and outlines China's dual response path of active multilateral engagement and domestic policy optimization.

Keywords: WTO subsidy rules; green industrial policy; China–EU electric vehicle dispute; environmentally oriented subsidies; SCM Agreement reform

1 Introduction

1.1 Research Background and Problem Statement

In October 2024, the European Union adopted definitive countervailing measures on electric vehicles imported from China for a period of five years, with the highest duty rate reaching 35.3 per cent. The European Commission found that the Chinese electric vehicle value chain had benefited from unfair subsidies and posed a threat of injury to the EU domestic industry. [1]

This dispute is not merely an ordinary trade-remedy case. It was initiated by the European Commission on an ex officio basis and did not proceed in parallel with an anti-dumping investigation. In addition, some studies suggest that the European Union maintained a significant trade surplus in battery electric vehicles (BEVs) during the investigation period. Taken together, these features give the dispute a pronounced institutional character in both procedural and policy terms. [2][3]

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A deeper problem lies in the fact that, against the backdrop of the global energy transition, states are increasingly relying on green industrial policies and subsidy instruments to promote low-carbon transformation. Yet the current WTO subsidy disciplines, which were largely shaped during the Uruguay Round, have not provided a stable and autonomous institutional space for environmentally oriented subsidies. As a result, green industrial policies are more likely to generate compliance disputes in practice. [4][5][6]

This gives rise to the central question of this article: should current WTO subsidy rules continue to treat the existence of trade distortion as the sole core criterion for evaluating the legality of subsidies? Should subsidies with a clear environmental orientation, demonstrable environmental effects, and some degree of trade-distorting impact receive special treatment? Using the China–EU electric vehicle countervailing dispute as its point of departure, this article examines the difficulties that WTO subsidy rules face in the context of green industrial competition and explores possible directions for reform.

1.2 Why the China–EU Electric Vehicle Dispute Is an Appropriate Case Study

This article selects the China–EU electric vehicle dispute as its case study not merely because it was initiated by the European Commission on an *ex officio* basis, but because it concentrates several key features of the current application of subsidy rules in the context of green industrial competition. First, unlike traditional green-energy disputes centered on a single renewable-energy procurement scheme or local-content requirement, this dispute directly concerns the entire manufacturing value chain of electric vehicles, including upstream inputs, vehicle production, price benchmarks, and industrial-policy rivalry. Second, the dispute combines the use of trade-remedy instruments with elements of industrial-policy defence, and therefore goes beyond the framework of ordinary enterprise-driven complaints. Third, it unfolds not only within the WTO subsidy regime, but also in an institutional environment shaped by the EU's Foreign Subsidies Regulation (FSR), which reflects the growing tension created by the parallel operation of multilateral rules and unilateral regulatory tools. Finally, the dispute has already entered formal WTO proceedings, giving it continuing relevance for both rule interpretation and institutional reform. [1][2][7]

For these reasons, the China–EU electric vehicle dispute is not necessarily superior to all other green-subsidy cases, but it most clearly exposes the difficulties that current WTO subsidy rules face when applied to competition in green manufacturing. It is therefore an appropriate case through which to examine the need for rule reform. [3][7][8]

1.3 Literature Review and Research Gap

Existing scholarship can broadly be divided into three categories. The first focuses on the basic structure, constituent elements, and reform direction of the WTO Agreement on Subsidies and Countervailing Measures (SCM Agreement), with particular attention to financial contribution, benefit, specificity, and the institutional boundaries of the

current subsidy regime. This body of work provides an important doctrinal foundation for understanding the logic of the SCM Agreement, while also beginning to question whether existing rules remain adequate in an era of resurgent industrial policy. [9][10]

The second category focuses on green subsidies, renewable-energy support, and the transition to net zero. These studies argue that environmentally oriented subsidies should not be assessed solely through the traditional lens of trade distortion and that the legal framework should preserve more stable policy space for such measures. At the same time, they recognize that environmentally oriented subsidies may also function as instruments of strategic trade policy, and therefore require more refined standards of classification and evaluation. [11][12][13][14][15][16][17]

The third category centers on green-subsidy disputes and new regulatory instruments, including studies of earlier disputes such as Canada–Renewable Energy and analyses of the relationship between the EU’s Foreign Subsidies Regulation and WTO rules. These studies help explain the broader institutional setting of contemporary green-subsidy disputes and reveal the increasing coexistence of multilateral disciplines and regional unilateral tools. [8][18][19]

Taken together, the existing literature tends to focus either on the general structure and reform of the SCM Agreement, or on the broader policy legitimacy of green subsidies, or on specific disputes and instruments such as the FSR. What it has not yet fully resolved is a more fundamental question: whether WTO rules should provide conditional special protection for subsidies that have a clear environmental orientation, demonstrable environmental effects, and yet also entail some degree of trade distortion. This article seeks to address that question by examining its institutional implications and possible reform paths in the specific context of green industrial competition. [8][9][11][14][15]

1.4 Central Argument and Structure of the Article

This article argues that the fundamental problem with current WTO subsidy rules does not lie in the mere fact that they regulate green subsidies. Rather, the problem is that they continue to rely primarily on the existence of trade distortion as the core criterion for evaluating the legality of subsidies, while lacking an independent framework for assessing environmental objectives. Subsidies with a clear environmental orientation, demonstrable environmental effects, and no link to export performance, local-content requirements, or import substitution should receive conditional special protection, even where they produce some degree of trade-distorting effect. The key to future reform, therefore, is not simply to “open a window” for green subsidies, but to recognize the normative difference between environmentally oriented subsidies and traditional competitive subsidies and to establish an independent set of standards accordingly.

2 Why WTO Subsidy Rules Struggle to Accommodate Green Industrial Policy

2.1 The Energy Transition Depends on Industrial Subsidies

The energy transition is typically associated with positive externalities such as emissions reduction, environmental improvement, and technological diffusion, while its benefits are not fully internalized in corporate profits. As a result, market mechanisms alone are often insufficient to sustain the long-term investment and technological diffusion required for a green transition. Fiscal subsidies, tax incentives, and other forms of industrial policy intervention have therefore become important policy instruments. [4]

In practice, major economies have generally promoted the energy transition through subsidies, tax incentives, and other industrial policy tools, including China, the European Union, and the United States. [20][21][22][23]

Although these policies differ in design, they all reflect a strong policy preference for supporting green industries. This suggests that subsidies are not only a central instrument of industrial policy, but also an important factor shaping the policy space available to states in advancing the energy transition. [4][23]

2.2 Specificity and the Compliance Dilemmas of Green Industrial Policy

Under the Agreement on Subsidies and Countervailing Measures (the “SCM Agreement”), the determination of a subsidy generally turns on the existence of a financial contribution and the conferral of a benefit. Subsidies are further classified as prohibited subsidies, actionable subsidies, and non-actionable subsidies, the last of which existed under the original framework but expired in 1999. Article 8 once covered research and development, regional development, and certain environmental adaptation measures, thereby preserving limited room for environmentally oriented policies for a period of time. Once that provision lapsed, however, that institutional space was not preserved. [5][24][11]

One of the central structural features of the SCM Agreement is the requirement of specificity. This requirement seeks to discipline government support directed to particular enterprises, industries, or regions where such support may distort competitive conditions. Specificity may arise either through explicit legal limitation or through the practical concentration of benefits on particular enterprises or industries. Once a subsidy is found to be specific, it may fall within the disciplines governing prohibited or actionable subsidies. [5][24][9]

Green industrial policies, however, often depend on the targeted allocation of public resources to sectors such as new energy, clean technology, and key emissions-reduction industries in order to promote technological substitution, industrial upgrading, and decarbonization. Precisely because such policies are purpose-driven, they are also more likely to display a form of deliberate specificity. At the same time, the current SCM framework has not developed a stable and autonomous set of rules specifically designed for environmentally oriented subsidies. [9][11]

As a consequence, support measures directed at sectors such as new energy and clean technology are more likely to become subject to specificity review and adverse-effects analysis. In this sense, the current SCM framework still does not adequately distinguish environmentally oriented subsidies from traditional trade-distorting subsidies, thereby creating a persistent tension in the treatment of green industrial policy. [9][11]

2.3 The Paralysis of the Appellate Body and Growing Uncertainty in Rule Application

Since late 2019, the WTO Appellate Body has been unable to function normally because appointments to it have been blocked, and the final-review function of the dispute-settlement system has therefore been substantially impaired. Against this backdrop, new uncertainty has emerged in the application of subsidy rules. Although existing jurisprudence continues to carry interpretive value, its continuation and further development no longer rest on a stable institutional foundation, and the interpretations adopted by investigating authorities in specific cases are less likely to be subjected to uniform appellate review. [25]

In the absence of effective final review, investigating authorities have greater room for interpretation in countervailing investigations. This is especially true with respect to key issues such as the determination of a financial contribution, the conferral and calculation of a benefit, and the assessment of specificity. Different members are therefore more likely to adopt divergent interpretations shaped by their own institutional settings and industrial-policy objectives, thereby weakening the consistency and predictability of rule application. [24][9]

This development is particularly significant in the field of green industrial subsidies. Because that field already contains an inherent tension within the structure of the rules, investigating authorities often enjoy broader room for maneuver when confronted with new forms of subsidization, judgments about price distortion, and alternative methods of calculation. In this sense, the paralysis of the Appellate Body is not merely a procedural gap; it also exacerbates uncertainty in the application of substantive subsidy rules and provides a more complex institutional background for subsequent trade frictions. [9][11]

3 Legal Analysis of the EU Countervailing Investigation into Chinese Electric Vehicles

3.1 The Course of the Investigation and the Factual Background

The EU countervailing investigation into Chinese electric vehicles began in 2023 and was initiated by the European Commission on an *ex officio* basis. In June 2024, the Commission announced its preliminary findings, concluding that the Chinese electric vehicle value chain had benefited from unfair subsidies. In July 2024, the European

Union began imposing provisional countervailing duties on the relevant imported products. [26][27][28]

In October 2024, the European Union adopted definitive countervailing measures on new battery electric vehicles imported from China for a period of five years, with duty rates ranging from 7.8 per cent to 35.3 per cent. According to official EU information, BYD was subject to a rate of 17.0 per cent, Geely 18.8 per cent, and SAIC 35.3 per cent; other cooperating producers were subject to a rate of 20.7 per cent, while non-cooperating producers were subject to a rate of 35.3 per cent. Tesla received an individual duty rate of 7.8 per cent. The European Commission also concluded that the unfair subsidies received by the Chinese electric vehicle value chain posed a threat of injury to EU producers. [1]

Following the adoption of the definitive measures, China and the European Union continued consultations on alternative arrangements such as price undertakings. In January 2026, the European Commission issued guidance on the submission of price-undertaking offers for Chinese electric vehicles, while China's Ministry of Commerce announced on the same day that the two sides had already held multiple rounds of consultations. The dispute therefore evolved along parallel tracks of investigation, measures, and consultation. [29][30]

3.2 Three Core Legal Issues

Determining a Financial Contribution: Does China's Raw-Materials Pricing Regime Constitute Government Entrustment or Direction?

In this dispute, the European Union adopted a relatively expansive approach to the concept of a financial contribution. In addition to subsidies in the more traditional sense, it also brought Chinese government intervention in upstream raw-material markets within the scope of its subsidy analysis, arguing that such measures enabled electric-vehicle producers to obtain inputs at prices below market conditions and thus amounted to a financial contribution within the meaning of Article 1.1 of the SCM Agreement. [2][5]

Under Article 1.1(a)(1) of the SCM Agreement, a financial contribution includes not only direct transfers of funds, foregone government revenue, or the provision of goods or services by the government, but also situations in which the government entrusts or directs a private body to perform those functions. As WTO jurisprudence has developed, the central issue under the "entrustment or direction" clause has been whether the private actor is, in substance, carrying out a function that is effectively attributable to the state, such as the transfer of funds, the supply of goods, or the provision of price support. [5][24]

The difficulty in this case is that the EU's reasoning does not rest primarily on the identification of concrete orders, authorizations, or coercive conduct in particular transactions. Instead, it places greater emphasis on broad price distortions in China's raw-material markets and the effects of policy intervention at the structural level. On that view, state influence over market structure, export arrangements, or industrial policy is further translated into a claim that downstream firms obtained subsidized input conditions. [2]

Yet WTO dispute-settlement practice suggests that the mere fact that regulatory measures affect private-market behavior does not, without more, establish that the government has entrusted or directed private actors to provide goods or to do so at a particular price. Existing case law and subsequent summaries of that jurisprudence indicate that changes in prices, shifts in supply flows, or market outcomes alone are generally insufficient to convert private conduct into a financial contribution attributable to the state. In other words, a more specific evidentiary link is needed between the proposition that “prices were affected by policy” and the conclusion that “private actors were entrusted or directed by the government to provide a financial contribution.” [24]

Accordingly, while the EU’s attempt to link intervention in raw-material markets directly to the concept of a financial contribution may have a certain policy logic, it remains vulnerable as a matter of legal reasoning. This controversy is not simply a disagreement over particular facts; it reflects a deeper structural difficulty in drawing the boundary between market influence and financial contribution when subsidy rules are applied to green industrial policies characterized by extensive state involvement. [24][9][11]

Benefit Pass-Through and Calculation: Is the EU’s External Benchmark Method Consistent with the SCM Agreement?

A second major issue concerns the calculation of subsidy benefits. Rather than relying entirely on domestic Chinese prices as the benchmark, the European Commission argued that Chinese market conditions had been distorted by government intervention and that domestic prices were therefore not representative. On that basis, it adopted an external benchmark methodology in certain parts of its analysis. Because the choice of benchmark directly affects the measured magnitude of the benefit, this issue lies at the center of the legal controversy in the case. [1][5]

Article 14 of the SCM Agreement provides that the amount of a subsidy is to be determined in terms of the benefit to the recipient, but it does not lay down an exhaustive set of rules for selecting the relevant benchmark. The key interpretive question, therefore, is under what circumstances domestic prices may be set aside and replaced by an external benchmark. [5][24]

WTO practice does not treat external benchmarks as categorically prohibited, but it generally regards them as an exceptional method available only under specific conditions. Their legitimacy typically depends on two elements: first, whether domestic prices or market conditions have lost their comparability because of pervasive government intervention; and second, whether the investigating authority can demonstrate that the selected external benchmark bears a reasonable relationship to the product or input at issue. In that sense, the legality of an external benchmark turns not only on a generalized claim of “market distortion,” but also on whether the authority has offered sufficiently specific and case-based reasoning. [24][9]

In this dispute, the European Union placed considerable emphasis on broad policy intervention in the Chinese market and, on that basis, questioned the representativeness of domestic prices. The difficulty is that an approach which excludes domestic prices on the basis of “overall distortion,” without detailed explanation of the relevant inputs, transaction conditions, and comparator benchmarks, risks turning the external bench-

mark from an exceptional tool into a more general method of calculation. This, in turn, may enlarge the methodological discretion of the investigating authority and effectively inflate the measured benefit. [1][24]

For that reason, the issue is not merely a technical one. The EU's reliance on external benchmarks raises a broader question about the limits of benefit analysis under Article 14 of the SCM Agreement. The real issue is not whether external benchmarks may ever be used, but whether their use is subject to strict conditions and whether domestic prices have been displaced on the basis of reasons that are sufficiently concrete, specific, and verifiable. In this respect, the interpretive path taken in this dispute illustrates the methodological pressure that current subsidy rules face when applied to industrial policies shaped by deep and persistent state intervention. [24][9][11]

Regulatory Overlap and Conflict: The Foreign Subsidies Regulation (FSR) and WTO Rules.

In addition to the countervailing investigation conducted under the WTO framework, the European Union has also developed a new review mechanism for third-country subsidies through the Foreign Subsidies Regulation (FSR). The FSR has applied since July 2023 and is designed to address distortions in the EU internal market caused by foreign subsidies. As a result, the legal setting of this dispute extends beyond the traditional application of WTO subsidy rules and reflects the parallel operation of multi-lateral trade disciplines and unilateral EU regulatory instruments. [7]

From a normative perspective, the SCM Agreement and the FSR do not address exactly the same problem. The former belongs to the multilateral law of subsidies and countervailing measures, focusing on issues such as financial contribution, benefit, specificity, and injury or adverse effects. The latter is concerned with competition in the EU internal market and asks whether foreign subsidies distort fair competition, thereby granting the European Commission a broader and more proactive set of review and intervention powers. Although both regimes are concerned with "foreign subsidies," they differ significantly in their objectives, legal standards, and remedial structures. [7][8]

The fact that the two frameworks differ, however, does not mean that they are functionally separate. The same state-support measure may expose firms both to a WTO-style countervailing investigation and to internal-market scrutiny under the FSR, thereby producing a form of *de facto* regulatory overlap. Compared with traditional countervailing measures, the FSR reaches further: it is not limited to border measures, but may also extend to merger control, public procurement, and other forms of internal-market regulation. Firms therefore face not merely a single trade-remedy risk, but a more complex pattern of multiple compliance burdens. [7][8]

More broadly, the FSR should not be understood simply as a technical supplement to existing rules. It also reflects a broader EU effort to develop subsidy-control capacity outside the multilateral framework. Some commentators therefore argue that the FSR pushes beyond the boundaries of traditional WTO subsidy disciplines and may intensify the tension between multilateral rules and regional unilateral instruments. In the context of the China–EU electric vehicle dispute, this means that the controversy is not confined to subsidy determination in a single case; it also reflects the broader rise of

parallel multilateral and unilateral regulatory responses in the context of global competition over green industry. [3][8]

The issue, then, is not merely one of formal legal conflict, but of deeper regulatory intersection. On the one hand, WTO rules continue to provide the basic legal framework for the control of subsidies in international trade. On the other, the European Union is attempting through the FSR to construct an additional layer of review and corrective intervention within its internal market. Although this dual-track arrangement may be driven by practical policy considerations, it also increases the likelihood of regulatory fragmentation and raises the institutional costs borne by firms and governments in responding to subsidy-related disputes. [7][8]

3.3 Disclosure and Evidentiary Controversies in the Dispute

In addition to the substantive issues discussed above, the China–EU electric vehicle countervailing investigation also raises questions concerning disclosure and the use of evidence. Under the SCM Agreement, a countervailing investigation requires not only substantive determinations regarding financial contribution, benefit, and injury, but also compliance with basic due-process requirements relating to disclosure, evidentiary explanation, and the participation of interested parties. [2][5][24]

Judging from publicly available materials, the European Union did not entirely deny procedural participation in this dispute. In August 2024, the European Commission disclosed its draft definitive findings to interested parties and made clear that they could continue to submit comments and request hearings where appropriate. [2] The more relevant concern, therefore, is not whether participation mechanisms were absent as such, but whether the authority explained its evidentiary choices and reasoning in a sufficiently transparent, specific, and verifiable manner.

More specifically, the use of “facts available” under Article 12.7 is, in principle, a supplementary mechanism; it does not relieve the investigating authority of its obligation to explain key facts and evidentiary links adequately. [5][24] In this dispute, the European Union emphasized that the Chinese electric-vehicle value chain was broadly affected by subsidies, while at the same time it still had to establish a more specific link among individual firms, particular measures, and particular inputs. Where that link is constructed primarily through generalized market assessments, broad inferences of distortion, or relatively abstract uses of facts available, the evidentiary approach adopted at the procedural level may shape the intensity of substantive findings and, in practice, lower the threshold for subsidy determination. [1][5][24]

For that reason, this article does not treat the issue as a separate category of “procedural deficiency” within WTO subsidy rules. It merely suggests that, in disputes involving green industrial competition and deep state involvement, the way an investigating authority handles disclosure, facts available, and evidentiary explanation may significantly affect substantive determinations regarding financial contribution and benefit. In this sense, the controversy over disclosure and evidence in the present dispute is better understood as a supplementary observation within the case study than as an independent theoretical pillar of the article’s institutional critique. [2][5][24]

4 Deficiencies in the WTO Subsidy Regime Exposed by the Dispute

4.1 Normative Misalignment: Current Subsidy Rules Fail to Distinguish Environmentally Oriented Subsidies from Ordinary Trade-Distorting Subsidies

The primary issue revealed by the China–EU electric vehicle dispute is not whether current WTO subsidy rules regulate green subsidies at all, but rather that they continue to operate through a traditional analytical framework centered on financial contribution, the conferral of a benefit, specificity, and injury or adverse effects, while lacking any independent evaluative dimension for environmental objectives. Under the basic structure of the SCM Agreement, once a subsidy measure satisfies the constituent elements of a financial contribution and the conferral of a benefit, and is found to be specific, it may fall within the disciplines governing prohibited or actionable subsidies. By contrast, the goals pursued by that measure—such as emissions reduction, energy substitution, clean-technology diffusion, or industrial decarbonization—do not in themselves constitute an independent basis of legality. [5][24][9]

From the perspective of institutional evolution, the SCM Agreement is not entirely without room for specific public policy purposes. Article 8 once included research and development, regional development, and specific environmental adaptation measures within the scope of non-actionable subsidies, thus providing limited protection for environmentally oriented subsidies for a certain period. However, with the expiration of this clause at the end of 1999, green subsidies no longer enjoy a clear institutional arrangement similar to a "safe harbor" under the current rules. As a result, even if a subsidy mainly serves the low-carbon transition, clean technology diffusion, or green industry development, it may still face the risk of being deemed to have violated the rules as long as it formally meets the requirements of specificity and the conferral of a benefit. [5][24][11]

The key issue is that green industry policies are often not neutral, universal fiscal measures, but rather state support tools with clear objectives, industry concentration, and technological selectivity. Because their goal is to promote the development of specific sectors, specific technological routes, or specific manufacturing capabilities, these measures are more likely to appear specific in form and are therefore subject to the same review logic as general competitive subsidies. In other words, current rules can identify "whether subsidies exist" and "whether they may have a competitive impact," but they cannot further distinguish whether a subsidy is merely a traditional form of distorting support or a policy tool that, while having some impact on competitive conditions, also has significant environmental public value. [11][12][13][14]

This is precisely where the current rules are "misaligned." The misalignment is not manifested in the complete abandonment or complete prohibition of green subsidies, but rather in the singularity of evaluation standards: environmental goals have not entered the core judgment framework of subsidy legality, resulting in green subsidies and general competitive subsidies being easily subject to similar normative evaluations in practice. Recent studies have begun to reflect on this singular judgment path centered

on trade distortion, advocating that sustainable development, environmental effectiveness, or net-zero transition needs be included in the core vision of subsidy rule reform. [9][11][15] This shows that the fundamental problem facing green subsidies is not just “whether they should be regulated,” but “how they should be distinguished from traditional distorting subsidies.”

The significance of the China–EU electric vehicle dispute therefore lies not in proving that green subsidies will inevitably give rise to disputes, but in concretizing a deeper institutional problem. As competition in green manufacturing becomes increasingly central to contemporary industrial policy, WTO subsidy rules will struggle to respond to actual regulatory needs so long as they lack an independent framework for evaluating environmentally oriented subsidies. In that sense, the key to future reform is not merely to create a general “window” for green subsidies, but to acknowledge, at the level of rule structure, that certain subsidies with a clear environmental orientation and demonstrable environmental effects may deserve conditional special protection even if they also produce some degree of trade-distorting effect. [11][14][15]

4.2 Structural Imbalance: How Formally Uniform Rules Produce Asymmetrical Effects on Developing Members

In addition to the misalignment of current evaluative criteria, the China–EU electric vehicle dispute also reveals a deeper institutional problem: although WTO subsidy rules apply formally uniform standards, they may generate asymmetrical practical effects on different categories of members in the context of green industrial competition. The SCM Agreement regulates member subsidies through a uniform framework of financial contribution, benefit, specificity, and adverse effects. While this formal equality reflects the generality of the rules, it does not eliminate the substantial differences among members in industrial capacity, fiscal resources, technological accumulation, market structure, and institutional response capacity. [5][9][23]

For many developing members, industrial subsidies are not just a short-term competitive tool, but also an important policy means to promote industrial upgrading, technological catch-up and green transformation. In the fields of new energy, clean technology and low-carbon manufacturing, state-guided investment, fiscal support and targeted assistance are often closely related to market cultivation, technology diffusion and scale formation in the initial stage of industry. However, precisely because such policies are usually more goal-oriented and industry-concentrated, they are more likely to fall into the scope of specificity review and adverse impact analysis under the current rules, thus making developing members bear higher compliance pressure when promoting green industry policies. [9][11][14]

At the same time, major developed economies have not abandoned industrial policies in practice, but have reshaped their domestic industrial order through tax incentives, green investment support, strategic industrial plans and regional unilateral regulatory tools. The EU, while using countervailing investigations, has also introduced internal market regulatory tools such as the FSR; the US has restructured the clean technology industry incentive system through the Inflation Reduction Act. This means that international subsidy regulation maintains a uniform standard in form, but in

practice it shows obvious asymmetry: developing members rely more on direct, visible and concentrated support measures for specific industries, and are therefore more likely to become the target of traditional subsidy review; developed economies, on the other hand, can retain more policy adjustment space by using more mature institutional design, stronger fiscal capacity and regional rule tools. [4][7][8][22][23]

This structural imbalance is particularly prominent in the context of competition in green manufacturing. This is because green transformation is not an abstract policy goal, but a real competition centered around specific industries, specific technologies, and specific supply chains. When existing rules have not yet formed an independent evaluation framework for environmentally oriented subsidies, and developed economies continue to strengthen their domestic industrial policies through national or regional systems, the so-called "uniformly applicable" subsidy discipline is more likely to amplify the disadvantage of developing members in the end. In other words, the problem is not just that developing members are "more likely to be sued," but that existing rules have not fully considered the value ranking: for members who are still under the dual pressure of industrial catch-up and green transformation, some subsidies with certain distorting effects may be the necessary means for them to enter green competition. [9][11][14][15]

The dispute thus reflects more than a bilateral controversy between China and the European Union. It also reveals the distributive consequences of current subsidy disciplines in the context of global green industrial competition. If future reform remains confined to the formal strengthening of general discipline, without addressing differences in stages of development, policy capacity, and transition needs, then current rules may continue to reproduce and reinforce institutional imbalance under the guise of neutrality. It is precisely for this reason that the case for granting special protection to environmentally oriented subsidies is not merely a plea for broader policy space, but an effort to restore greater normative legitimacy and institutional fairness to subsidy rules in the era of green transformation. [9][11][15][23]

5 Reforming WTO Subsidy Rules and China's Response

5.1 Normative Reconstruction: Why Environmentally Oriented Subsidies with Certain Trade-Distorting Effects Should Receive Special Protection

If the fundamental problem with current WTO subsidy rules in the context of green industrial competition is that they fail to distinguish environmentally oriented subsidies from ordinary trade-distorting subsidies, then the key to future reform cannot simply be the general expansion of policy space. Rather, the rules must acknowledge the possibility that certain subsidies, although they may affect competitive conditions and trade flows, should not be subjected to the same legal evaluation as traditional competitive subsidies, provided that their environmental objectives are clear, their environmental effects are demonstrable, and the degree of distortion they generate is reasonably related to those objectives. [9][11][14][15]

This judgment is based on the fact that green transformation is not a matter of ordinary industrial competition, but has obvious global public goods attributes. The

benefits of emission reduction, decarbonization, clean technology diffusion and green infrastructure construction are often not entirely internalized by a single subsidy provider or a single market entity. In this case, if the subsidy rules still revolve mainly around the single standard of "whether it causes trade distortion" without incorporating environmental goals into an independent evaluation dimension, then the rules themselves may systematically underestimate the public value of environmentally oriented subsidies and treat green transformation support measures that should be encouraged as well as general competitive support in terms of norms. [11][12][14]

Therefore, this article argues that future WTO reforms should not continue to use "whether trade distortion exists" as the sole core criterion for denying the legitimacy of green subsidies, but should instead shift to a more discriminative evaluation logic: for subsidies with a clear environmental orientation, trade distortion should be allowed to exist within a certain range, as long as such distortion is not directly aimed at export expansion, local content, or import substitution, but rather maintains a reasonable connection with environmental goals such as emission reduction, energy substitution, and the diffusion of green technologies. [11][14][15][16]

This means that the focus of future rule reforms should not be on setting abstract exceptions for "green subsidies" in a general way, but rather on acknowledging the normative differences between environmentally oriented subsidies and traditional distorting subsidies at the rule level. In other words, what really needs to be protected is not all subsidies that claim to be green, but those subsidies that, even if they have a certain degree of industrial selectivity and competitive influence, still have the core function of promoting green transformation. Only under this premise can WTO subsidy rule reform truly transcend the limitations of the current "trade distortion centrism". [9][11][15]

From this perspective, the normative basis for granting special protection to green subsidies does not lie in denying their possible trade effects, but in recognizing that, in the era of green transformation, certain subsidies with some degree of trade-distorting effect may nonetheless possess a higher level of institutional legitimacy. If the rules refuse to acknowledge this possibility, they do not remain neutral; rather, they effectively privilege traditional competitive order over environmental transformation, thereby reproducing a persistent misalignment between subsidy discipline and the needs of climate governance. [11][14][15][17]

5.2 Criteria for Identifying Protected Green Subsidies

Once it is accepted that certain environmentally oriented subsidies should receive special protection, the next question is how such subsidies ought to be defined. Without clear criteria, any "green exception" or "green safe harbor" risks becoming little more than a policy slogan. It would fail to provide workable legal standards and would make it difficult to prevent members from invoking the label of "green" to justify ordinary competitive subsidies. For reform to be institutionally feasible, it must therefore establish a set of criteria capable of distinguishing protected environmentally oriented subsidies from ordinary trade-distorting subsidies. [9][11][15]

This article argues that at least four criteria are necessary.

First, the environmental objective must be clear and direct. A subsidy should not qualify for special protection merely because it can later be described as indirectly beneficial to green transformation. Rather, it should directly serve identifiable objectives such as emissions reduction, decarbonization, energy substitution, clean-technology diffusion, or pollution control. [11][14][15]

Second, the environmental effect must be verifiable. Future rules should not rely solely on policy declarations in determining whether a subsidy is genuinely green. Members should instead be required to provide objective evidence showing that the measure produces verifiable effects in areas such as technological substitution, carbon reduction, clean-energy use, or green manufacturing capacity. [11][14][15]

Third, some degree of trade-distorting effect may be tolerated, but it must remain proportionate to the environmental objective pursued. The rules should not require a protected green subsidy to be entirely free of competitive impact. What matters is whether the impact bears a reasonable relationship to the environmental purpose served. A subsidy that is industry-selective and affects market share or price structure may still qualify where that effect is closely linked to the scaling-up of green technologies or the acceleration of low-carbon transition. By contrast, where environmental objectives are marginal and distortion is severe, special protection should not be granted. [9][11][16]

Fourth, the subsidy must not be tied to highly discriminatory conditions. In particular, it should not be conditioned on export performance, local-content requirements, or import substitution. These conditions are not ordinarily necessary for green transformation and would risk pushing environmentally oriented subsidies back into the logic of traditional competitive subsidy measures. [5][24][11]

Based on this, a more workable direction for future WTO reform would not be to restore the general category of non-actionable subsidies in the sense of former Article 8 of the SCM Agreement, but to establish a conditional protection mechanism for environmentally oriented industrial subsidies.

In other words, what should truly be protected are not all subsidies labeled “green,” but those that simultaneously meet the four requirements of clear environmental objectives, verifiable environmental effects, proportionate distortion, and the absence of highly discriminatory conditions. Only in this way can rule reform both respond to the practical needs of green transformation and prevent green exceptions from being abused as a tool for general industrial protection. [9][11][14][15]

For this reason, the reform path advocated in this article is not simply to expand members’ freedom to subsidize. Rather, it seeks to reconstruct the evaluative order of the rules themselves. In that reconfigured framework, the existence of trade distortion would no longer function as the sole negative criterion, and the clarity and effectiveness of environmental objectives would no longer remain merely secondary considerations. Instead, they would become central to determining whether a given subsidy deserves conditional special protection. Only in this way can WTO subsidy rules genuinely respond to the institutional challenges of the era of green industrial competition. [11][14][15][8]

5.3 China's Response Path: Parallel Development of Rules-Based Participation and Policy Optimization

Given that fundamental revisions to existing multilateral rules are unlikely in the short term, China's response to green subsidy disputes should not be limited to individual case defenses, but should proceed simultaneously from two directions: participation in rules and optimization of domestic policies. The core is not merely to secure greater policy space, but to promote a more differentiated rule logic: subsidies with a clear environmental orientation, demonstrable environmental effects, and no attached export performance, local content, or import substitution conditions should receive conditional special protection, even if they cause some trade distortion. [9][11][14][15]

At the multilateral level, China should participate more actively in the discussion on WTO subsidy rules reform and promote the green subsidy issue from a general policy dispute to a more explicit institutional issue. Specifically, China should not only continue to make stricter interpretation requirements on the identification of financial contribution, the application of external benchmarks, and the determination of specificity in individual cases, but also take the initiative to advocate at the level of rule reconstruction that environmentally oriented subsidies should no longer be evaluated solely on "whether there is trade distortion" as the only evaluation criterion, but should introduce independent judgment factors such as the clarity of environmental objectives, the verifiability of environmental effects, and the proportionality of the degree of distortion. In other words, China's focus in future rule participation should not only be on opposing other countries' investigative measures, but should strive to promote the formation of a normative framework that can protect environmentally oriented subsidies with certain distortion effects. [5][9][11][14][15][8]

At the domestic policy level, China needs to adjust the institutional design of green industry support measures accordingly to make them more in line with the future reform direction. First, the clarity of environmental goals should be further strengthened to avoid simply packaging general industrial support as "green subsidies"; second, the quantitative explanation and evidence accumulation of environmental effects should be strengthened so that the relevant measures are not only "green" in terms of policy goals, but also able to prove their emission reduction, decarbonization or technology diffusion effects at the rule level; third, more attention should be paid to the proportionality between the intensity of measures and environmental goals, and excessive expansionary subsidy arrangements should be reduced; fourth, highly sensitive designs that are directly linked to export performance, local content or import substitution should be avoided as much as possible, thereby reducing the risk of them being classified as traditional distorting subsidies. [11][14][15][16]

In addition, corporate compliance preparations should also be included in this overall response framework. For green manufacturing enterprises that have already entered or may enter the focus of international competition, they should be encouraged to establish a more systematic system of subsidy information files, cost and pricing explanations, environmental performance certificates, and supporting compliance documents. The significance of doing so is not only to address the questions raised by specific investigating authorities regarding financial contribution, benefit calculations,

and external benchmarks, but also to strengthen the argument that "related subsidies have independent environmental legitimacy" through more sufficient facts and data support. It is in this sense that China's future response to the issue of green subsidies should not be merely a passive application of existing rules, but rather an active participant in promoting the redefinition of environmentally oriented subsidies. [5][24][11][14][15]

6 Conclusion

This article uses the China–EU electric vehicle dispute to examine whether current WTO subsidy rules can accommodate green industrial competition. It finds that the SCM Agreement's reliance on trade distortion as the sole legality criterion creates a fundamental misalignment: green subsidies are judged by the same standard as traditional competitive subsidies, even when they serve clear environmental goals. The EU investigation illustrates the practical uncertainty this generates.

The article therefore argues for a conditional protection mechanism rather than a blanket green exception. Protected subsidies should meet four requirements: clear environmental objectives, verifiable effects, proportionate trade impact, and no export-performance or local-content conditions. This would make environmental legitimacy an independent evaluative factor. For China, the response should combine active multilateral engagement with domestic policy optimization to ensure transparency and evidence-based design. Only by reconstructing the evaluative framework can WTO rules reconcile trade discipline with climate transition.

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