THE DILEMMA OF THE USE OF WTO SAFEGUARDS IN THE RENEWABLE ENERGY SECTOR

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ABSTRACT

Facing a proliferation of safeguards in the renewable energy sector, the World Trade Organization (hereinafter "WTO") is in a dilemma of legality and legitimacy to make a balance between respecting a Member's right to use safeguards as a legal defense and preventing such measures from being abused to undermine legitimate environmental sustainability interests. On the one hand, the WTO safeguard mechanism provides necessary flexibility on a nondiscriminatory basis for trade remedies. On the other hand, as an exceptional remedy, the flexibility of safeguards should be limited only to the extent necessary for trade remedies. Therefore, the dilemma is that too much flexibility may lead to the abuse of such a measure and departure from trade remedies. Moreover, against other Members' green industrial policies, the use of safeguards may have negative implications for environmental protection and sustainable development.

To get out of the dilemma, the article offers recommendations in two dimensions. Inside the WTO, a balanced approach could limit the flexibility of safeguards in the renewable energy sector and the sustainable development principle should be taken into consideration through the interpretation and application of safeguard rules. Outside the WTO, even for the protection of domestic renewable energy industries, safeguard measures cannot

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be applied against the objective of sustainable development.

KEYWORDS: *safeguards, renewable energy, flexibility, trade remedy, sustainable development*

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I. INTRODUCTION

The application of safeguard measures does not depend upon unfair trade practice, as is the case with anti-dumping or countervailing measures. Members of the World Trade Organization (hereinafter "WTO") have a right to resort to the safeguards remedy in an extraordinary emergency that makes it necessary to protect a domestic industry temporarily. Such measures should be taken pursuant to Article XIX of the General Agreement on Tariffs and Trade (hereinafter "GATT") and the WTO Agreement on Safeguards (hereinafter "AS"), which permits the imposition of temporary safeguard measures to protect industries that exhibit severe injury or the threat of such injury as a result of increased imports.

For climate change mitigation and environmental protection, the world is experiencing a global shift to renewable energy, which is part of the goals

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of sustainable development. "There is an intimate connection between renewable energy and sustainable development."[1] The development of trade in renewable energy products around the world has given rise to the interaction between the WTO and sustainable development.

With the global competition of the renewable energy industry becoming fierce, the number of trade remedy disputes related to renewable energy has substantially increased, including countervailing measures, anti-dumping duties and safeguard measures. In July 2019, China requested the establishment of a WTO panel alleging that the US imposition of the safeguard on crystalline silicon photovoltaic (hereinafter "CSPV") imports was inconsistent with its obligations under the GATT 1994 and the AS. This is the first dispute related to safeguard measures imposed on renewable energy products before the WTO. In September 2021, the panel ruled in the *United States — Safeguard Measure on Imports of Crystalline Silicon Photovoltaic Products* (hereinafter "DS 562") upheld the legality of the US safeguard measure and rejected all of China's claims.[2] Specifically, the panel found that the US established that solar imports had increased as a result of unforeseen developments, established a causal link between increased imports and serious injury to the domestic industry, and appropriately considered other factors causing injury to the domestic industry.

Critically, the article argues that the panel's ruling in DS 562 fails to provide convincing legal reasoning for the use of safeguard measures in the renewable energy sector. At least, it remains controversial whether it lowered the threshold of imposing safeguard measures.[3] DS 562 is the first case in which a panel determined that a Member's imposition of a safeguard measure was consistent with the WTO safeguard rules. Before DS 562, all of the safeguard measures challenged had been found to violate the WTO rules. Furthermore, from the perspective of environmental protection and climate change mitigation, the abuse of safeguards in the renewable energy sector may make renewable energy products less appealing, undermining the goal of sustainable development.

To define the appropriate use of safeguards and the role of the WTO in dealing with trade-related environmental issues, the article starts under the following assumptions: (1) WTO Members have a right to apply safeguards for trade remedy; (2) green industrial policies are needed to encourage renewable energy transition and avoid dangerous climate change for

[1] Ibrahim Dincer, *Renewable Energy and Sustainable Development: A Crucial Review*, 4(2) RENEWABLE & SUSTAINABLE ENERGY REV. 157, 157 (2000).

[2] *See generally* Panel report, *United States — Safeguard Measure on Imports of Crystalline Silicon Photovoltaic Products*, WTO Doc. WT/DS562/R (circulated Sept. 2, 2021).

[3] *See* Simon Lester, *Document: U.S. and China Discuss WTO Panel Ruling on Safeguards at DSB Meeting*, CHINA TRADE MONITOR (Oct. 3, 2021), https://www.chinatrademonitor.com/document-us-and-china-discuss-safeguards-panel-ruling-at-dsb-meeting/.

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sustainable development; and (3) trade contributes to environmental goals. Given that safeguard rules are entirely aimed at protecting domestic industries, regardless of whether there exists unfair trade by other Members, any increase in imports causing serious injury to domestic industries is regulated by safeguard rules. However, as far as green industrial policy is concerned, it is difficult to justify the conditions of safeguards, especially the requirement of unforeseen circumstances. Moreover, the safeguard measure against other Members' green industrial policies could have a negative impact on environmental protection and sustainable development.

In this context, the question arises whether the WTO regime is effective in regulating the use of safeguards against other Members' green industrial policies. WTO rules may influence Members' behaviors in the renewable energy sector with implications for the global governance of trade and the environment. Thus, the crucial issue is how to ensure the legality of the use of safeguards in a WTO-consistent manner and provide legitimate space for sustainable development.

After DS 562, scholars have conducted a comprehensive analysis of the use of safeguards in the renewable energy sector and their environmental implications.[4] The academic literature on DS 562 has discussed the legality of safeguards under the WTO and its potential impact on the environment, but has not directly focused on the legitimacy of safeguard measures imposed on photovoltaic (hereinafter "PV") products. To fill this gap, the main contribution of the article is to establish a link between the legality and legitimacy of safeguard measures in the renewable energy sector.

In doing so, this article is structured as follows. The introduction is presented in Section I. Section II outlines the demand for trade remedy tools and sustainable development goals. Section III critically analyzes the dilemma of the too flexible application of safeguards in the renewable energy sector. Section IV seeks to provide a balanced approach for the WTO to overcome the dilemma and find other alternatives. The final Section V is the conclusion.

II. DEMAND: TRADE REMEDY TOOLS AND SUSTAINABLE DEVELOPMENT GOALS

Trade remedies and environmental protection are closely linked. Generally, the WTO identifies three main types of import restraints as trade

[4] Henok Asmelash, *The Turn to Safeguard Measures in the Solar Trade War,* 56(5) J. WORLD TRADE 803, 803 (2022); Weihuan Zhou & Mandy Meng Fang, *'Unforeseen Developments' Before and After US – Safeguard Measure on PV Products: High Standard or New Standard?*, 22(5) WORLD TRADE REV. 541, 541 (2023); *see generally* Xinyan Zhao, *The WTO Panel Report on US — Safeguard Measure on PV Products: A Decisive Victory for the Fight Against Climate Change?*, *in* 13 EUROPEAN YEARBOOK OF INTERNATIONAL ECONOMIC LAW 2022 175 (Jelena Bäumler et al. eds., 2023).

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remedies, including countervailing duties, antidumping and safeguards. Compared with countervailing duties and antidumping, safeguard measures can be applied without having to demonstrate "unfairness" on the part of trading partners.[5] As there are no claims of unfair trade, safeguards can provide greater flexibility on a nondiscriminatory basis for trade remedy. Moreover, solar safeguards are not only trade remedy measures, but also special safeguard duties imposed on the imports of solar products, which are directly related to environmental protection and sustainable development goals.

To understand the economic incentives for a Member to apply solar safeguard measures and further analyze their influence on the environmental protection, I argue for need to consider solar safeguards both within the confines of the WTO rules and against sustainable development goals. The article thus turns to a discussion of the WTO's safeguard provisions and the relationship between solar safeguards and environmental protection in this section.

A. Flexibility: Applying the Safeguard Measure for Temporary Relief

The safeguard mechanism of Article XIX of the GATT and the AS in the WTO provides temporary protection from fair trade. While WTO Members have made commitments to eliminate discrimination in international trade and reduce trade barriers, safeguard measures authorize Member's governments to favor domestic producers and restrict imports. In the political-economic text, Hoekman and Kostecki (2010) characterize the inclusion of a safeguard clause as a "safety valve",[6] which permits Members to investigate whether a domestic industry is injured because of imported goods and then impose a temporary unilateral import restriction that would otherwise be in violation of their commitments under the WTO. On the one hand, the safeguard provisions have necessary flexibility, through which Members may desire a temporary escape from the WTO agreements. On the other hand, the use of safeguards must strike a balance between commitments and flexibility.

1. Escape Clause: Necessary Flexibility for Trade Liberalization — In theory, the WTO safeguard mechanism is a safety valve and offers Members rule-based measures to protect their domestic industries against serious injury due to increased imports resulting from trade liberalization. Instead of non-compliance, Members can temporarily escape from trade liberalization commitments in a WTO-consistent manner in response to unforeseen emergency situations. From GATT to WTO, the safeguard is a long-standing

[5] Bernard M. Hoekman & Michel M. Kostecki, *Safeguards and Exceptions*, *in* THE POLITICAL ECONOMY OF THE WORLD TRADING SYSTEM: THE WTO AND BEYOND 413, 413 (3d ed., 2010).
[6] *Id.*

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mechanism. The history of the safeguard mechanism shows the need for an escape clause, which can justify the claim of GATT Contracting Parties and now WTO Members that there was an unexpected surge in imports, which caused economic harm to the domestic industry, and temporary protection is justified.

From the historical perspective, from GATT to WTO, the safeguard mechanism was established throughout the history of the multilateral trading system. At the beginning, the 1945 US Proposals for Expansion of World Trade and Employment suggested the introduction of an escape or safeguard clause that would allow for temporary deviations with respect to tariff commitments.[7] In 1947, the GATT was concluded. Based on the theory of comparative advantages, the purpose of trade liberalization was meant to be achieved through two specific objectives: (1) substantial reduction of tariffs and other trade barriers and (2) the elimination of preferences on a reciprocal and mutually advantageous basis.[8] To pursue these two objectives, the GATT has contemplated several obligations, such as the most-favored-nation (hereinafter "MFN") obligations, national treatment obligations and the non-discrimination principle. The safeguard provisions, as exceptions limiting the scope of the obligations, were included in Article XIX of the GATT. The text of Article XIX of the GATT did not change from the GATT 1947 to the GATT 1994. During the Uruguay Round, as far as the safeguard concerned, there was a substantial reform and Article XIX of the GATT was transformed into the WTO's Agreement on Safeguards.[9]

The safeguard provisions have always existed in the WTO agreements. "It reflects the political reality that trade liberalization may be difficult to sustain if and when it creates unexpected and severe economic hardship for certain sectors of a country's economy, especially import-competing industries."[10] The rationale has always been to provide a policy space for Members to pursue their legitimate objectives. Members may find it easier to live up to their trade liberalization commitments. Thus, a safeguard

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[7] U.S. DEP'T OF STATE, PROPOSALS FOR EXPANSION OF WORLD TRADE AND EMPLOYMENT 13 (1945) ("Commitments with regard to tariffs should permit countries to take temporary action to prevent sudden and widespread injury to the producers concerned. Undertakings for reducing tariffs should therefore contain an escape clause to cover such contingencies.").

[8] *See* Marrakesh Agreement Establishing the World Trade Organization pmbl., Apr. 15, 1994, 1867 U.N.T.S. 154 [hereinafter Marrakesh Agreement]; General Agreement on Tariffs and Trade pmbl., Oct. 30, 1947, 61 Stat. A-11, 55 U.N.T.S. 194 [hereinafter GATT 1947].

[9] Appellate Body Report, *Korea — Definitive Safeguard Measure on Imports of Certain Dairy Products*, ¶ 77, WTO Doc. WT/DS98/AB/R (adopted Jan. 12, 2000) [hereinafter *Korea — Dairy* Appellate Body Report] (On the relationship between the provisions of the Agreement on Safeguards [hereinafter AS] and Article XIX of the GATT 1994, it ruled, on the basis of Articles 1 and 11.1(a) of the AS, that: "[A]ny safeguard measure imposed after the entry into force of the WTO agreement must comply with the provisions of both the Agreement on Safeguards and Article XIX of the GATT 1994.").

[10] PETER VAN DEN BOSSCHE & WERNER ZDOUC, THE LAW AND POLICY OF THE WORLD TRADE ORGANIZATION: TEXT, CASES AND MATERIALS 631 (4th ed., 2017).

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mechanism is necessary for flexibility to avoid the rigidity of commitments and achieve trade liberalization.

2. Exceptional Remedy: Limited Flexibility only to the Extent Necessary for Trade Remedy — In practice, the safeguard mechanism gives Members access to various measures, including tariff increases and quantitative restrictions, to implement when a surge in imports causes harm to domestic industries. Regardless of the form of the measure, whether a Member can successfully apply a safeguard measure would depend on its ability to follow the four substantive requirements of Article XIX of the GATT and the AS. As the economic emergency triggers the need for a safeguard measure, Members may apply the measure only when all of the four requirements are met. First, there is a sudden and significant increase in imports of a particular product. Second, increased imports occur as a result of unforeseen developments. Third, imports cause, or threaten to cause, serious injury to the domestic industry. Fourth, there is a causal link between increased imports and serious injury. Thus, although the safeguard mechanism provides policy space for Members to take discretionary action, the flexibility must be restricted by these requirements.

Past experience shows that WTO panels and the Appellate Body have been particularly strict in the examination of compliance with the requirements of Article XIX of the GATT and the AS. This is clear from the title of Article XIX of the GATT, "Emergency Action on Imports of Particular Products", that a safeguard measure should be extraordinary. Due to its extraordinary nature, there is a natural tension between trade remedy and trade liberalization. The Appellate Body, therefore, noted in the *US — Line Pipe (2002)* that[11]:

> [A] natural tension between, on the one hand, defining the appropriate and legitimate scope of the right to apply safeguard measures and, on the other hand, ensuring that safeguard measures are not applied against "fair trade" beyond what is necessary to provide extraordinary and temporary relief. A WTO Member seeking to apply a safeguard measure will argue, correctly, that the right to apply such measures must be respected in order to maintain the domestic momentum and motivation for ongoing trade liberalization. In turn, a WTO Member whose trade is affected by a safeguard measure will argue, correctly, that the application of such measures must be limited in order to maintain the multilateral integrity of ongoing trade concessions.

[11] Appellate Body Report, *United States — Definitive Safeguard Measures on Imports of Circular Welded Carbon Quality Line Pipe from Korea* [hereinafter *US — Line Pipe* Appellate Body Report], ¶ 83, WTO Doc. WT/DS202/AB/R (adopted Mar. 8, 2002).

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To date, a number of safeguard measures have been successfully challenged at the WTO. However, in DS 562, the panel rejected China's claim that the solar safeguard measure imposed by the US is inconsistent with its obligations under the WTO. The jurisprudence indicates a shift in determining whether a safeguard measure is WTO consistent. Even if a Member acts in accordance with Article XIX of the GATT and the AS, safeguards must be applied only to the extent necessary to remedy serious injury.

B. Sustainability: Safeguarding Renewable Energy for Trade and Environmental Sustainability

At the national level, it is of significance to explore the contribution of renewable energy and government support to achieve sustainable development goals. Developing renewable energy is less damaging to the environment than burning fossil fuels, making it more environmentally sustainable. Moreover, renewable energy is considered a key driver for mitigating climate change. To reduce global emissions and address climate change, governments support the development of renewable energy through various green industrial policies.[12] For example, the Chinese government has been launching many policies supporting renewable energy. With policy incentives, China had a record year in installing solar PV and offshore wind facilities in 2021. It achieved a record installation of 142.6GW of PV capacity between January and October, resulting in a total installed PV capacity of 540GW by the end of October.[13]

At the international level, sustainable development has been widely accepted by the international community as a guiding principle. Nor is sustainable development an environmental concept, but one common to all aspects of the international community. Both international environmental agreements and WTO law treat sustainable development as axiomatic.[14] Sustainable development is considered a major principle in international environmental agreements. The Parties to the United Nations Framework Convention on Climate Change (hereinafter "UNFCCC"), for example, have a right to, and should, promote sustainable development.[15] Additionally, sustainable development is integrated into WTO law. The Marrakesh

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[12] *See* Joanna I. Lewis, *The Rise of Renewable Energy Protectionism: Emerging Trade Conflicts and Implications for Low Carbon Development*, 14(4) GLOB. ENV'T POL. 10, 12-13 (2014).

[13] Carrie Xiao, *China Shatters Records with 142.6GW of PV from January to October*, PV TECH (Nov. 22, 2023), https://www.pv-tech.org/china-shatters-records-with-142-6gw-of-pv-from-january-to-october/.

[14] CHRISTINA VOIGT, SUSTAINABLE DEVELOPMENT AS A PRINCIPLE OF INTERNATIONAL LAW: RESOLVING CONFLICTS BETWEEN CLIMATE MEASURES AND WTO LAW 2 (2009).

[15] United Nations Framework Convention on Climate Change art. 3.4, May 9, 1992, S. Treaty Doc No. 102-38, 1771 U.N.T.S. 107.

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Agreement makes a reference to the significance of sustainable development. It states that the WTO Members recognize:

> [T]hat their relations in the field of trade and economic endeavor should be conducted with a view to raising standards of living, ensuring full employment and a large and steadily growing volume of real income and effective demand, and expanding the production of and trade in goods and services, while allowing for the optimal use of the world's resources in accordance with the objective of sustainable development, seeking both to protect and preserve the environment and to enhance the means for doing so in a manner consistent with their respective needs and concerns at different levels of economic development.[16]

Furthermore, the interpretation and implementation of the WTO agreements should not ignore the sustainable development principle. The inclusion of sustainable development in the Preamble to the Marrakesh Agreement indicates that it is an objective of all WTO-covered agreements. In addition, the Uruguay Round Agreement Decision on Trade and Environment highlighted: "there should not be, nor need be, any policy contradiction between upholding and safeguarding an open, non-discriminatory and equitable multilateral trading system on the one hand, and acting for the protection of the environment, and the promotion of sustainable development on the other."[17]

Therefore, under the WTO, the solar safeguard measure, which is imposed on PV products and supports a Member's domestic solar industry, should be not only legally sustainable but also environmentally sustainable. While WTO Members enjoy a certain level of flexibility and discretion to apply a solar safeguard measure, they should carefully address the relationship between trade remedy and environmental protection when they take safeguards against other Members' green industrial policies. This is to say, a solar safeguard measure not only supports trade remedy but also contributes to environmental goals.

C. Legality and Legitimacy: Clash Between Trade Remedy and Sustainable Development

The WTO and sustainable development have been intertwined, which has raised many complex issues. For example, international trade and international environmental issues sometimes converge. As far as

[16] Marrakesh Agreement, *supra* note 8.
[17] World Trade Organization, *Decision on Trade and Environment*, WTO Doc. LT/UR/D-6/2 (1994).

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environmental issues are concerned, there are some WTO rules that the trade obligations that normally bind Members may need to be temporarily suspended to allow Members to legally protect environmental interests.[18] However, as the safeguard rules are not designed to protect public interests, Members do not need to take environmental issues into consideration when applying safeguards in the renewable energy sector. The key question therefore becomes how solar safeguard measures that aim for trade remedies relate to sustainable development under the WTO.

Although the WTO has provided support for sustainable development, this is not enough. As discussed above, the preamble to the Marrakesh Agreement affirms the objective of sustainable development. Nevertheless, it should be noted that the language "objective" is not as legally binding as other binding provisions. Thus, there is a gap between the WTO rules and the sustainable development principles. It is necessary to further explore whether the WTO safeguard rules can consider sustainable development objectives.

To some extent, the clash between trade remedy and sustainable development lies in the dilemma between legality and legitimacy. "The shape of the fundamental dilemma of legality is enmeshed in the structures of global governance. There are always exceptional circumstances that appear morally and politically to call for a suspension or evasion of normal legality."[19] From the perspective of legality, under certain circumstances, WTO Members legally have a right to apply a safeguard measure against imports of other Members. Furthermore, some describe safeguard measures as being "temporary protection when commitments to liberal trade impose unexpectedly severe political burdens on officials in importing nations, and when temporary protection will impose comparatively modest political costs on trading partners".[20] Due to the political burden, the legality of safeguards may be suspended in case of exceptional circumstances.

In addition, "the need to invoke legitimacy implies that existing

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[18] GATT art. XX entitled "General Exceptions", states:

> Subject to the requirement that such measures are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions pre-vail, or a disguised restriction on international trade, nothing in this Agreement shall be construed to prevent the adoption or enforcement by any [Member] of measures: . . . (b) necessary to protect human, animal or plant life or health; . . . (g) relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption . . . .

[19] Richard Falk, *Introduction: Legality and Legitimacy: Necessities and Problematics of Exceptionalism*, *in* LEGALITY AND LEGITIMACY IN GLOBAL AFFAIRS 3, 4 (Richard Falk et al. eds., 2012).

[20] Alan O. Sykes, *The Safeguards Mess: A Critique of WTO Jurisprudence*, 2(3) WORLD TRADE REV. 261, 263 (2003).

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international law is in some relevant sense deficient or nonresponsive to a perceived urgency."[21] From the perspective of legitimacy, given that there is no environmental consideration in the safeguard rules, they cannot make a proper response to the urgency of global warming and climate change if a safeguard measure is imposed on renewable energy products. Thus, we need to invoke legitimacy as the use of safeguards in the renewable energy sector may undermine legitimate environmental interests.

To some extent, the remedy gap can be described as a double-edged sword. It is important to note that there are reasons for the institutional design of the WTO relief gap. The remedy's weak character helps to provide the necessary legal flexibility for members to pursue and implement their national priorities and ameliorates the issue of legitimacy by increasing members' political participation. Any reform of WTO remedies must balance the pros and cons to ensure that the system is balanced in a dynamic legal and political process. This allows members the opportunity to take certain measures for a specific period without worrying about paying too much. Thus, each member has the ability to retain the necessary space for autonomous foreign trade policy and the flexibility to choose how to comply.

In practice, as long as members face temporary domestic political or economic difficulties in implementing trade rules or DSB recommendations or awards, they will not be completely excluded from the WTO for noncompliance or compliance with awards. The "reasonable period of time" according to article 21 of the DSU plays a crucial role as a systemic safety valve. Otherwise, the international community could face a less open global trading system.

III. DILEMMA: TOO FLEXIBLE APPLICATION OF SAFEGUARDS IN THE RENEWABLE ENERGY SECTOR

The WTO safeguard mechanism defines rules for the application of safeguards, which allow Members to legally breach their commitments under the WTO. These rules must strike a balance between commitments and flexibility. Too little flexibility may render the rules useless, but too much flexibility may undermine the value of commitments. "Designing a safeguard mechanism so that a balance is achieved between making it difficult to open the safety valve and avoiding an explosion of the boiler is not easy."[22] Like a boiler with too many pressure-release valves, too much flexibility can make the safeguard mechanism ineffective. Members thus cannot rely on the protection of safeguards in unexpected hard times.

This tension between commitments and flexibility in the use of

[21] Richard Falk, *supra* note 19, at 6.
[22] HOEKMAN & KOSTECKI, *supra* note 5, at 423.

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safeguards in the renewable energy sector leads to fears that Members may easily turn to the flexibility of safeguard provisions when the domestic renewable energy industry cannot compete with imports of like or directly competitive products. WTO prevents the abuse of flexibility by making escape contingent on unforeseen events, avoiding contagion and opportunistic behavior.[23] However, in practice, since the requirements of legality of safeguards are not vague and ambiguous, its flexibility might be easily abused. Furthermore, with the consideration of the legitimacy of sustainable development, environmental challenges even make abuse severe.

A. The Abuse of the Flexibility of Safeguards and Departure from Trade Remedies

Returning to the start of this article, the use of safeguards in the renewable energy sector can be legally justified under the WTO. Unlike anti-dumping and countervailing measures, safeguard measures do not require the existence of unfair trade practices. Because of this, the requirements for application of safeguard measures are strict that these measures must be temporary, only when imports are found to cause or threaten serious injury to a competing domestic industry. Nevertheless, some Members opt for the contingent flexibility of the safeguard mechanism. After all, safeguards provide protection for the domestic industry from exogenous supply shocks that lead to a sharp decrease in the price of an imported good,[24] which can make imports much cheaper and thus harder for the domestic industry to compete with. Generally, the imposition of a safeguard requires a Member to delve into two distinct matters. As expressed by the AB these are the following[25]:

> [F]irst, is there a right to apply a safeguard measure? Second, if so, has that right been exercised *[sic]*, through the application of such a measure, within the limits set out in the treaty? These two inquiries are separate and distinct. They must not be confused by the treaty interpreter. One necessarily precedes and leads to the other.

Generally, there are two steps for safeguard measures. First, through a domestic legal process, a government can decide whether to impose a safeguard measure. Second, after the measure has been imposed, WTO

[23] KRZYSZTOF J. PELC, MAKING AND BENDING INTERNATIONAL RULES: THE DESIGN OF EXCEPTIONS AND ESCAPE CLAUSES IN TRADE LAW 11 (2016).
[24] YONG-SHIK LEE, SAFEGUARD MEASURES IN WORLD TRADE: THE LEGAL ANALYSIS 15-17 (3d ed. 2014).
[25] *US — Line Pipe* Appellate Body Report, *supra* note 11, ¶ 84.

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Members may challenge that measure in WTO dispute settlement. Accordingly, the application of safeguards can be divided into two steps. Prior to the imposition of a safeguard, the examination of all relevant facts giving rise to the right to apply a safeguard requires a case-specific investigation. After that, if there is a right to apply a safeguard measure, Members may not choose to exercise this right even if they are legally entitled to do so. Such is the case that the escape clause of safeguard remains a relatively unpopular and even arguably underutilized instrument.[26]

This is not to say that the safeguard measure is useless. When a Member inevitably faces some pressure to protect the domestic industry, especially against fair trade, potentially more telling measure of trade remedy lies in the legally allowed safeguards, when those actions can be taken within the limits set out in Article XIX of the GATT and the AS. However, in fact, Members have been found to have acted inconsistently with Article XIX of the GATT and the AS.[27] Likewise, safeguards in the renewable energy sector will be abused if the requirements of Article XIX of the GATT and the AS are not satisfied, including the requirement of unforeseen developments, the requirement of increased imports and of serious injury or threat thereof, and the requirement of a causal link between increased imports and serious injury.

However, due to the contextual ambiguity of the WTO safeguard rules, there is a legal gap between the interpretation of the requirements to apply safeguard measures and compliance with these requirements. Among them, proving the requirement of unforeseen developments is quite complicated. The legal standard used to determine what constitutes an unforeseen development may be both subjective and objective.[28] This relates to the distinction drawn by the Appellate Body between the terms "unforeseen" and "unforeseeable", the latter of which has a narrower scope and, thus, requires a higher threshold.[29] Compared with "unforeseeable" development, the scope of "unforeseen" development is much wider. Specifically, the rapid development of the renewable energy industry could make the import surge of renewable energy products constitute unforeseen developments. Consequently, loosening the requirements of safeguards could encourage Members to abuse their flexibility.

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[26] Chan P. Bown, *Why Are Safeguards Under the WTO so Unpopular?*, 1(1) WORLD TRADE REV. 47, 51 (2002).

[27] *See generally* e.g., *Korea — Dairy* Appellate Body Report, *supra* note 9; *US — Line Pipe* Appellate Body Report, *supra* note 11; Appellate Body Report, *United States — Definitive Safeguard Measures on Imports of Certain Steel Products*, WTO Doc. WT/DS248/AB/R (adopted Dec. 10, 2003) [hereinafter *US — Steel Safeguards* Appellate Body Report].

[28] *Analytical Index GATT 1994 – Article XIX (DS Reports)*, WTO ¶ 33, https://www.wto.org/english/res_e/publications_e/ai17_e/gatt1994_art19_jur.pdf.

[29] *See Korea — Dairy* Appellate Body Report, *supra* note 9, ¶ 84.

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B. The Absence of a Clear Line Between the Necessary Flexibility and Abuse of the Flexibility

Safeguard measures are designed as flexible exceptions for Members to temporarily escape their WTO obligations and deviate from the goal of trade liberalization. However, the potential abuse of the flexibility of safeguard measures not only undermines free trade but also poses a threat to environmental protection and sustainable development. Therefore, it is crucial to establish a clear distinction between the flexibility of safeguards and their abuse. However, the absence of such distinction can be observed throughout the WTO dispute settlement practice relating to renewable energy. As illustrated by Figure 1, this article compares green subsidies with safeguard measures in the renewable energy sector, as both of them are used as trade-related green industrial policy tools.[30]

Members use different green industrial policies, and the use of green industrial policies is restrained by the WTO rules. Recently, a number of WTO disputes have centered on the use of green industrial policies.[31] Environmental and energy policies are considered part of green industrial policy.[32] Despite the objective of environmental protection, green industrial policies, at the heart of the "next generation of trade and environment disputes"[33], would likely be challenged at the WTO. On the one hand, trade policymakers consider how to revise trade rules to allow for green industrial policy. On the other hand, environmental policymakers consider how to support domestic green industries, for example, in the renewable energy sector. This is illustrative of the tensions between trade and the environment, and as such, WTO disputes related to these green industrial policy tools arise.

Green subsidies are a typical example of green industrial policies. Safeguards can be used as substitute policy instruments and substitutes for green industrial policies.[34] Moreover, unlike anti-dumping and countervailing duties targeting specific exporters, a safeguard measure can be imposed on an MFN basis against all competitors' green industrial policies and imports of renewable energy products from all sources. In this way, safeguards can be viewed as a Member's foreign policy tool against

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[30] *See generally Green Industrial Policy and Trade: A Tool-Box*, U.N. PROGRAMME P'SHIP FOR ACTION ON GREEN ECON. (2017), https://wedocs.unep.org/handle/20.500.11822/22915.

[31] *See generally* Ann Harrison et al., *Green Industrial Policy in Emerging Markets*, 9 ANN. REV. RES. ECON. 253 (2017) ("Green industrial policies include investments, incentives, regulations, and policy supports designed to stimulate and facilitate the development of environmental technologies.").

[32] Dani Rodrik & Tilman Altenburg, *Green Industrial Policy: Accelerating Structural Change towards Wealthy Green Economies, in* GREEN INDUSTRIAL POLICY: CONCEPT, POLICIES, COUNTRY EXPERIENCES 2, 11 (2017).

[33] Mark Wu & James Salzman, *The Next Generation of Trade and Environment Conflicts: The Rise of Green Industrial Policy*, 108(2) NW. U.L. REV. 401, 416 (2014).

[34] *Id.*

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other trading partners' green industrial policies.

It is important to establish certain standards for evaluating the legality and legitimacy of both green industrial policies and the tools against them. While the legality of green subsidies is often challenged, their environmental legitimacy can still be justified. In fact, the United States and the European Union are designing and implementing their subsidy schemes to boost domestic green industries, such as the U.S.'s Inflation Reduction Act and EU's Net-Zero Industrial Act and Critical Materials Act. However, WTO rules prohibit trade measures favoring domestic producers over foreign competitors. For example, local content requirements (hereinafter "LCRs"), seen as discriminatory practices that treat foreign and national like products differently, have been a subject of ongoing debate in the field of international trade. A main issue in this debate is the WTO-inconsistency of supporting certain renewable energy products with policy preference. Henok Asmelash undertook a systematic analysis of ten years of WTO jurisprudence on renewable energy support measures and concludes that these measures stand no, if any, chance of passing WTO scrutiny.[35]

The illegality of such measures is clear in the WTO that the support schemes requiring the use of domestic products over imported products constitute prohibited subsidies under Article 3.1(b) of the Agreement on Subsidies and Countervailing Duties (SCM). Besides, these measures are inconsistent with the national treatment obligation of the GATT Article III:4. Even if the GATT Article III:8(a) provides an exception to the national treatment obligation for government procurement, the derogation is limited to discriminatory measures in the form of public procurement requirements, and broad domestic content requirements could render Article III:8(a) inapplicable even in the context of government procurement. After all，the derogation should be interpreted in a narrow way to prevent broader discrimination against imported products not destined for government purposes.[36] Furthermore, despite bias towards trade, the environmental

[35] Henok Asmelash, *The First Ten Years of WTO Jurisprudence on Renewable Energy Support Measures: Has the Dust Settled Yet?*, 21(4) WORLD TRADE REV. 455, 455 (2022).

[36] For example, the scope of the Article III:8(a) derogation was a key issue in *the Canada – Renewable Energy*, the Appellate Body found that the domestic content requirements in the Feed-in Tariff (FIT) Programme, which required the use of equipment for renewable energy generation facilities produced in Ontario, do not govern the procurement of electricity by the Government of Ontario. This is because under the GATT Article III:8(a), the product being discriminated against (renewable energy generation equipment) must be in a competitive relationship with the product procured (electricity). These two products are not in a competitive relationship. Thus, while the Government of Ontario's purchases of electricity itself under the FIT Programme constitute procurement, the domestic content requirements on generation equipment are not covered by the GATT Article III:8(a) derogation. Consequently, the Appellate Body found these domestic content requirements accord less favorable treatment to imported equipment than like domestic equipment, inconsistent with the national treatment obligation of the GATT Article III:4. *See* Appellate Body Report, *Canada — Certain Measures Affecting the Renewable Energy Generation Sector*, ¶¶ 5.79-.85,

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justifications for green subsidies arise. The GATT Article XX as a general exception can justify green subsidies on the grounds of protecting the environment and promoting the conservation of exhaustible natural resources.[37] Different from the derogation or exception from the national treatment obligation under the GATT Art. III:8(a),[38] the general exception is only applied to justify the violation of obligations, including the national treatment obligation.

Unlike green subsidies, neither WTO rules nor dispute settlement cases provide a clear line for the application of safeguard measures in the renewable energy sector, let alone considerations of their environmental legitimacy. This lack of clarity may create a loophole for Members seeking to indirectly support their domestic green industries by using safeguard measures against imports of particular green products through tariffs or quotas. WTO safeguard rules are like an "assembly line" designed to protect a domestic industry from an unforeseen and sudden surge in imports that is causing or threatening to cause serious injury. Due to unforeseen developments, any product imported in increased quantities and under conditions that cause or threaten serious injury to domestic producers of like or directly competing products may be subject to safeguard measures. This one-size-fits-all approach fails to recognize the environmental dimension of the safeguard measures in the renewable energy sector. In sharp contrast, subsidy practices can be divided into distinct categories of subsidies to distinguish distortionary subsidies.[39] Certain green subsidies aimed at the protection of the environment could pass WTO scrutiny and therefore cannot be subject to countervailing measures.[40] Even if some green subsidies fall in the prohibited or actionable category, the GATT Article XX allows Members to justify the environmental legitimacy of their measures.

To this end, Figure 1 provides a summary of the conflicts between green industrial policies and safeguards as a tool against green industrial policies

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WTO Doc. WT/DS412/AB/R (adopted May 24, 2013); *Canada — Measures Relating to the Feed-in Tariff Program*, ¶¶ 5.79-.85, WTO Doc. WT/DS426/AB/R (adopted May 24, 2013).

[37] *See generally* Nu Ri Jung, *Are There 'Exceptions' to the SCM Agreement? Applicability of the GATT Exceptions Vis-à-Vis the International Rules on Subsidies*, 57(3) J. WORLD TRADE 457 (2023).

[38] It means that the GATT Art. III:8(a) allows governments to discriminate against imported products in their own procurement activities without violating the national treatment obligation. If a government procurement activity falls under the scope of the GATT Art. III:8(a), the national treatment obligation of the GATT Article III is not applicable.

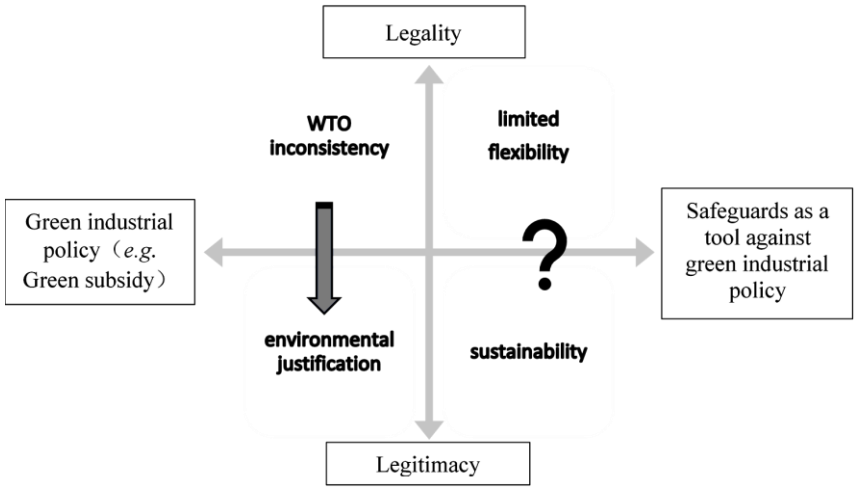
[39] The Agreement on Subsidies and Countervailing Measures (SCM) creates three categories of subsidies: prohibited (red light) subsidies (Article 3); permitted yet actionable (yellow light) subsidies (Article 5); and permitted non-actionable (green light) subsidies (Article 8). Among them, green light subsidies expired in 1999, and since then, non-actionable subsidies have been considered as actionable.

[40] *See also* Anna Reiwer-Kaliszewska, *The Sustainable Development and the Issue of Subsidies in the Light of the Law of the World Trade Organization*, *in* FINANCE AND SUSTAINABILITY: PROCEEDINGS FROM THE FINANCE AND SUSTAINABILITY CONFERENCE, WROCLAW 2017 197, 204 (Agnieszka Bem et al. eds., 2018).

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as well as the relationship between the legality and legitimacy, as discussed above.

FIGURE 1: The Lines Between the Legality and Legitimacy of Green Subsidies Are Clear, in Contrast to the Extent to Which the Limits of the Flexibility of Safeguards Are not Abused Is Ambiguous.



C. The Rise of WTO Safeguard Disputes Related to Renewable Energy and Pressure for the WTO to Address Environmental Issues

Government support for renewable energy, such as green subsidies, has led to a variety of WTO disputes. As the WTO jurisprudence rendered the adoption of WTO-consistent green industrial policies such as LCRs virtually impossible, Members may take the safeguard path to green protectionism.[41] The concern, then, is that more safeguard measures will be imposed on renewable energy products, although a number of requirements must be fulfilled prior to the imposition of safeguards. Consequently, there will be more safeguard disputes around renewable energy at the WTO.

As discussed above, unlike the previous disputes related to green industrial policies at the WTO, the safeguard disputes in the renewable energy sector are directly against competitors' green industrial policies. In 2018, safeguards were imposed on renewable energy products by the US for

[41] Asmelash, *supra* note 4, at 811.

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the first time.[42] Before that, the main types of trade remedy disputes related to green industrial policies in the renewable energy sector were anti-dumping and countervailing duty disputes.[43] While safeguard, anti-dumping and countervailing duties all require evidence of domestic injury, antidumping also requires evidence that the injury was caused by low-priced or dumped imports, countervailing duties require evidence that the injury was caused by foreign subsidies, and safeguards require evidence that the injury was caused by an unexpected import surge. Both dumped imports and foreign subsidies rely on the support of green industrial policies, which should be proven inconsistent with the WTO rules. In contrast, safeguard measures are directly against competitors' green industrial policies and unexpected import surges can be a result of fair trade where domestic industries cannot compete with fairly traded imports. Thus, it is more convenient for a Member to resort to safeguard measures.

DS 562 set a precedent that a safeguard measure successfully passed WTO scrutiny and it may encourage Members to resort to safeguard measures to protect their domestic industries. The panel in DS 562 found that the US's measure was not inconsistent with WTO safeguard rules and rejected China's claims challenging the legality of the US's safeguard measure. Prior to DS 562, the strict interpretation of the WTO rules on safeguards historically discouraged Members from using safeguards to protect their domestic industries.[44] One reason is that it was quite difficult to satisfy the requirement of "as a result of unforeseen developments". In DS 562, considering the China's industrial policies under the requirement of unforeseen developments, the panel found that "China's industrial policies, five-year plans and other government support programs" were a development that could not have been foreseen by US negotiators,[45] and concluded these unforeseen developments resulted in increased imports of CSPV products into the US.[46] Arguably, in reviewing the legality of safeguards, the panel did not take environmental factors into consideration.

In response to the new safeguard disputes in the renewable energy sector, the WTO is facing challenges in that the flexibility of safeguards tends to be an extremely specific problem for environmental protection. It is difficult for the WTO to strike a balance between respecting Members' policy autonomy to legally use safeguards in a WTO-consistent manner and preventing such measures from being abused and undermining the legitimate interests of

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[42] *President Trump Approves Relief for U.S. Washing Machine and Solar Cell Manufacturers,* U.S. TRADE REPRESENTATIVE (Jan. 22, 2018), https://ustr.gov/about-us/policy-offices/press-office/press-releases/2018/january/president-trump-approves-relief-us.

[43] *See* Lewis, *supra* note 12, at 16-21.

[44] *See* Bown, *supra* note 26, at 47.

[45] Panel report, *United States — Safeguard Measure on Imports of Crystalline Silicon Photovoltaic Products*, ¶ 7.26, WTO Doc. WT/DS562/R (circulated Sept. 2, 2021).

[46] *Id.* ¶ 7.35.

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environmental protection and sustainable development. However, the regulation of renewable energy issues in international law is highly fragmented, in that there is no overarching regulation that specifically addresses renewable energy.[47] In addition, the WTO is often referred to as a self-contained regime, or at least as a specific subsystem of international law.[48] Although the WTO regulates the use of safeguards in Article XIX of the GATT and the AS, it has not established the relationship between the regulation of renewable energy issues and safeguards. Due to the fragmentation of international law and the nature of the self-contained regime, the flexibility of safeguards in the renewable energy sector under the WTO is likely to jeopardize environmental sustainability interests, especially with respect to energy transition and climate change mitigation.

To conclude, both the ambiguous nature of safeguard rules and environmental challenges lead to the dilemma that too much flexibility in the use of safeguards in renewable energy not only fails to meet the requirements of legality but also undermines environmental sustainability interests.

IV. SOLUTION: REMOVE THE DILEMMA OF SAFEGUARDS IN THE RENEWABLE ENERGY SECTOR INSIDE AND OUTSIDE THE WTO

Facing a proliferation of safeguards in the renewable energy sector, what actions can we take inside and outside the WTO is a critical issue to consider. The WTO, after all, is a rule-based system and provides a common platform for Members to negotiate multilateral agreements, all of which are based on international consensus. Even if it could be shown that safeguards might result in benefits at the national level, the question remains whether the results can be accepted by the international community.

The panel report of DS 562 demonstrates that it is possible for a Member to legally defend the application of safeguard measures in the renewable energy sector through the WTO dispute settlement process. The case, however, raises questions on how to limit its abuse for the legitimate interests of environmental sustainability, which may go beyond the scope of the WTO.

Accordingly, there is an urgent need to explore the ways in which WTO rules and international environmental agreements seek to allow for some flexibility of safeguards while limiting their abuse in the renewable energy sector. "The maturation of environmental regimes has resulted in their growing power and influence *vis-à-vis* trade, and it is most likely that this trend will continue for some time."[49] Thus, in the future, the WTO, as part

[47] Lewis, *supra* note 12, at 28.
[48] Anja Lindroos & Michael Mehling, *Dispelling the Chimera of 'Self-Contained Regimes' International Law and the WTO*, 16(5) EUR. J. INT'L L. 857, 862 (2005).
[49] Arthur Mol, *Global Institutional Clashes: Economic versus Environmental Regimes*, 10(4) INT'L J. SUSTAINABLE DEV. & WORLD ECOLOGY 303, 316 (2003).

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of the trade regimes, will be more likely to increasingly take the power and influence of environmental regimes into account, rather than vice versa. This points to the need for better governance inside and outside the WTO to deal with issues related to renewable energy and sustainable development, including the use of safeguards.

A. Inside the WTO: Towards a Balanced Approach to Limit the Flexibility of Safeguards in the Renewable Energy Sector

With global competition in renewable energy areas becoming increasingly fierce, the use of safeguards in the renewable energy sector will be witnessed in the near future. Traditionally, as trade remedy tools, safeguard measures are often taken in the form of increased tariffs to effectively limit importation. Other than the general requirements that safeguard measures be applied only to the extent necessary to remedy or prevent serious injury to domestic industries and to facilitate adjustment,[50] WTO safeguard rules "[P]rovide no guidance as to how the level of a safeguard measure in the form of an increase in the tariff above the bound rate should be set."[51]

Moreover, there are no environmental considerations in the WTO safeguard rules or relevant WTO dispute settlement cases. After DS 562, scholars have conducted a comprehensive analysis of the use of safeguards in the renewable energy sector and their environmental implications. It has been argued that the Panel in DS 562 applied a lower standard of review, and abuse of safeguard measures has negative impacts on the environment. However, a gap still needs to be filled. Even if a WTO-consistent safeguard measure in the renewable energy sector may be established, there remains uncertainty as to what extent safeguards can become a tool available for sustainability considerations.

As discussed above, there are primarily two types of measures in trade disputes over renewable energy: one is green subsidies, such as LCRs, while the other in trade remedy measures, such as safeguard measures in the renewable energy sector. The two disputed trade measures are both protectionist in nature. Although subsidies and safeguards are applied for different economic purposes, on the face, they both may violate the WTO rules and establish a trade barrier protecting domestic industry from international competition. Nevertheless, challenged green subsidies rely on the GATT Article XX to justify the violations, whereas the safeguard mechanism, as an escape clause, offers Members an option to escape their

[50] Agreement on Safeguards, Jan. 1, 1995, art. 5.1, Marrakesh Agreement Establishing the World Trade Organization, Annex 1A, 1869 U.N.T.S. 154.

[51] Won-Mog Choi, *FTAs and Safeguard Norms: Their Variation and Compatibility,* 6(1) ASIAN J. WTO & INT'L HEALTH L. & POL'Y 81, 84 (2011).

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obligations in a way that would otherwise constitute a violation.

From legality to legitimacy, striking a balance between legal relief against foreign importers and legitimate environmental considerations could be achieved through a balance between the rights and obligations of the same Member. For example, LCRs constitute violations of national treatment obligations, but the right of a Member to invoke an exception under the GATT Article XX can justify these violations. As for safeguard measures, necessary flexibility (it creates rights) deprives the trade restrictive measure of its WTO-inconsistency before it could be seen as a violation of obligations under the WTO.

FIGURE 2: The Interrelation Between Green Subsidies and Safeguards in the Renewable Energy Sector

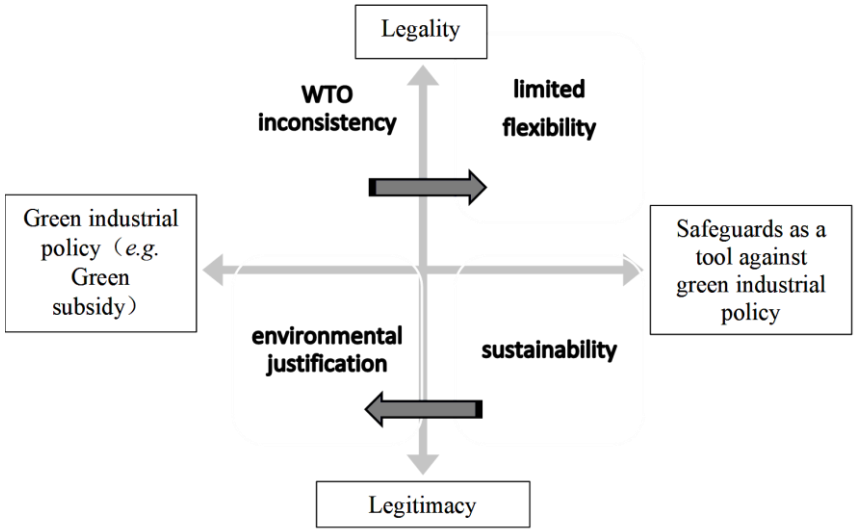


Figure 2 shows the interrelation between green subsidies and safeguards in the renewable energy sector. Given that the WTO-inconsistency of green subsidies is easily challenged, and it is uncertain whether the violation can be successfully justified by the GATT Article XX, Members may prefer to directly escape their WTO obligations through the use of safeguards.[52] Accordingly, to prevent the potential abuse of safeguards, especially in the renewable energy sector, these measures cannot go beyond the legal constraints included in the flexibility mechanism itself. How far can such restraint be expected to go? Rather, in addition to the exercise of rights (necessary flexibility), it is equally important to respect WTO obligations (flexibility needs to be limited) when it comes to WTO safeguards rules and

[52] *See also* Asmelash, *supra* note 4, at 809-11.

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relevant dispute settlement cases. Besides, environmental considerations could also be a guarantee against abuse of safeguards. In doing so, balancing rights and obligations is of the essence. This section will illustrate this approach in detail.

1. First Balance: Strengthen The WTO Safeguard Disciplines, While Allowing Necessary Flexibility — The main purpose of this article is not to determine whether safeguard measures in the renewable energy sector meet the legal requirements in the WTO safeguard rules (in particular, unforeseeable developments), but rather to provide a rational interpretation of these requirements in order to find a balance between trade remedies and sustainable development. The academic literature on DS 562 has discussed the legal dimension of safeguards under the WTO and its impact on the environment, but has not directly focused on the environmental dimension of safeguard measures imposed on PV products. One way to fill this gap is to utilize the safeguard mechanism itself to explore how to draw a line between the flexibility of safeguard measures and the limited flexibility of safeguard measures in the renewable energy sector.

Although the WTO rules provide flexibility for the use of safeguards in the renewable energy sector, this flexibility should be limited by strengthening the WTO safeguard disciplines and the threshold of imposing safeguard measures. As discussed above, there is a dilemma that the flexibility of WTO safeguard rules may lead to the abuse of these measures. Moreover, whether there is space for these measures that comply with WTO rules but fail to realize the legitimate sustainable development goals under the WTO is complicated. To overcome this dilemma, the flexibility of the use of safeguards in the renewable energy sector should be subjected to stringent discipline.

On the one hand, a solution would be for the WTO to tighten the requirements for the imposition of safeguards. As far as renewable energy is concerned, the use of safeguards should adapt to the rapid deployment of renewable energy globally. In fact, renewable energy is the fastest-growing energy source globally and nearly all countries had renewable energy policy targets in place at the end of 2020.[53] Against this background, it is difficult to demonstrate unforeseen developments. Before the application of safeguard measures, it is of particular importance to show that the emergency situation is the result of unforeseen developments. This requirement should not be flexibly interpreted for a balance between trade liberalization and environmental protection. For example, adherence to appropriate environmental standards should be considered when investigating whether the unforeseen development caused the serious injury in the domestic

[53] *Renewable Energy*, CTR. FOR CLIMATE & ENERGY SOL., https://www.c2es.org/content/renewable-energy/ (last visited Aug. 19, 2024).

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market.[54]

In other words, to prevent the abuse of loosely defined flexibility, the WTO should strengthen its safeguard disciplines. Although conflicts exist between Panels and the Appellate Body in the interpretation of the WTO disciplines on safeguards,[55] the history of challenges to safeguards measures that have proceeded to Panel and Appellate Body decisions shows that they are overwhelmingly found to be in breach of WTO law.[56] The stability and credibility of the WTO increase the more precisely it can define the set of circumstances under which an escape clause can be available to exonerate Members' violation of certain trade obligations.[57] But the minimum requirements for legality under WTO safeguard rules only consider economic factors. To prioritize environmental concerns, Members are expected to assume stricter obligations when implementing safeguard measures, as long as they comply with the rights and obligations outlined in WTO safeguard rules. Otherwise, Members would find it more expedient to turn to an unconstrained safeguard mechanism. "[L]owering the thresholds for the invocation of safeguards will likely be hijacked by trade protectionists and hinder the diffusion of climate-friendly technologies."[58] At the very least, it is expected that their imposition will meet a high threshold.

On the other hand, while strictly interpreting safeguards imposed on renewable energy products can be a useful tool for promoting renewable energy, it is important to balance the benefits of such an approach against the need to respect Members' autonomy to turn to safeguard remedies. Although the Panel in DS 562 has confirmed that Members have the rights to use safeguard measures to protect domestic green industries against unfair competition, Members may not successfully defend their measures in the same way as the US did in DS 562. When Members use safeguards properly, they can serve to optimize PV product supply chains, namely, protecting the local solar producers from overexposure to imported PV products and thus enabling them to be stable suppliers to the domestic market.[59] For importing countries, the question, then, is how to properly use safeguards to optimize PV product supply chains.

To approach the question, the premise of this article is that not only the WTO but also Members themselves should take action. Behind the safeguard

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[54] PIETER VAN VAERENBERGH, GREENING TRADE REMEDIES: ENVIRONMENTAL CONSIDERATIONS IN THE LAW AND PRACTICE OF WTO TRADE REMEDIES 179 (2023).

[55] *See generally* Hyerim Kim & Dukgeun Ahn, *Judicial Conflicts Between Panels and the Appellate Body in the WTO Safeguard Jurisprudence*, 54(6) J. WORLD TRADE 961 (2020).

[56] ALAN O. SYKES, THE WTO AGREEMENT ON SAFEGUARDS: A COMMENTARY 33 (2006).

[57] Krzysztof J. Pelc, *Seeking Escape: The Use of Escape Clauses in International Trade Agreements*, 53(2) INT'L STUD. Q. 349, 351 (2009).

[58] Meng Mandy Fang, *Shedding Any New Light? The WTO's Latest Ruling in the US-China Solar Battle*, 17(1) ASAIN J. WTO & INT'L HEALTH L. & POL'Y 240, 269 (2022).

[59] Zhao, *supra* note 4, at 194.

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mechanism of balancing rights and obligations lies a pair of values with certain conflicting relationships: Members' economic sovereignty and trade liberalization. Given the distinction between an obligation of action and an obligation of a specific action, the WTO should not be imposing a specific action but appropriate action to require Members to impose safeguards to undertake some corrective action.[60] Therefore, to a large extent, it would leave the balance to the discretion of member governments.

Specifically, once the substantive requirements to trigger the imposition of safeguard measures are satisfied,[61] what remains to be seen is to what extent the measure will be imposed. Some procedural requirements may be used to consider its impact on environmental protection through the safeguards mechanism. Some procedural requirements may be used to consider its impact on environmental protection through the safeguards mechanism. First, the good faith obligation requires Members to act in good faith and not to circumvent other WTO commitments when exercising rights of safeguards to temporarily defect from their obligations.[62] The effectiveness of relief may pull Members towards safeguards, but the temporary relief cannot help protect the domestic industry all the way on its own. Second, in light of the extraordinary nature of safeguard measures, Members should ensure the import restriction of safeguard measures only to the extent necessary. The principle of proportionality can be applied as a tool to balance the needs of trade remedy and environmental protection. For example, given the large scope of the solar photovoltaics supply chain,[63] Members cannot disproportionately determine "how far upstream and/or downstream the production chain of a given 'like' end product to look in defining the scope of the domestic industry"[64]. In 2018, the U.S. Trade Representative determined that particular products should be excluded from the safeguard measure applied to certain solar products.[65] In addition, the implementation of safeguards should be transparent and time-bound.

2. Second Balance: Take the Sustainable Development Principle into

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[60] Bernard Hoekman & Petros C. Mavroidis, *Reassessing the Safeguards Mess* 15 (Eur. Univ. Inst., RSC Working Paper 2023/14, 2023), https://cadmus.eui.eu/bitstream/handle/1814/75374/RSCP_WP_2023_14.pdf?sequence=1&isAllowed=y.

[61] Generally, the substantive requirements include an increase in imports, due to unforeseen developments, causing serious injury, and a causal link between the imports and the serious injury.

[62] Good faith is a general principle of international law, including WTO law. *See* Helge Elisabeth Zeitler, *'Good Faith' in the WTO Jurisprudence – Necessary Balancing Element or an Open Door to Judicial Activism?*, 8(3) J. INT'L ECON. L. 729, 729 (2005) (Good faith as a principle guiding the application of WTO law).

[63] *See generally* U.S. DEP'T OF ENERGY, SOLAR PHOTOVOLTAICS SUPPLY CHAIN DEEP DIVE ASSESSMENT (Feb. 24, 2022), https://www.energy.gov/sites/default/files/2022-02/Solar%20Energy%20Supply%20Chain%20Report%20-%20Final.pdf.

[64] Panel Report, *United States — Safeguard Measure on Imports of Fresh, Chilled or Frozen Lamb from New Zealand*, ¶ 7.77, WTO Doc. WT/DS177/R, WT/DS178/R (adopted May 16, 2001).

[65] Exclusion of Particular Products from the Solar Products Safeguard Measure, 84 Fed. Reg. 27684, 27684-85 (Sept. 19, 2018).

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Consideration Through the Interpretation and Application of the WTO Safeguard Rules — "International law is continually presented with new possibilities of State behavior which have not, and could not previously have, been foreseen."[66] The relationship between international law and State behavior is dynamic, not static. International law and states are mutually shaping each other. International law defines the rights and obligations of states. Meanwhile, state behavior, whether lawful or unlawful, also shapes and develops international law. The DS 562 not only brings us to think about the legality of safeguard measures but also sparks discussions on the negative impacts of energy transition and environmental protection. Although WTO safeguard rules are an "assembly line", where any product can be legally implemented as long as it meets the four substantive requirements, climate change forces us to examine the legitimacy of safeguard measures in the renewable energy sector from a sustainable development perspective. Even if the legal requirements are met, such measures may still face challenges in their environmental justification. Since the WTO safeguard rules do not consider the environmental dimension, it is necessary for us to seek external support, such as the sustainable development principle, to further restrict the abuse of flexibility in safeguard measures.

Sustainable development has been a central issue for the WTO. As discussed above, it is an objective of all WTO agreements. Not only mentioned in the treaty text but the objective of sustainable development is also being achieved in the interpretation and application of the WTO rules. According to the Vienna Convention (hereinafter "VCLT"), apart from the interpretation of the original treaty text, Article 31.2 gives a contextual approach in the sense that the preamble, additional agreements, and instruments related to the treaty shall be considered.[67] Thus, as the sustainable development principle exists in the preamble to the Marrakesh Agreement, it is helpful for the interpretation of WTO rules, including the safeguard rules.

The important role of the sustainable development principle in the interpretation of safeguard rules should be recognized. The WTO dispute settlement system has acknowledged that customary international law in the interpretation of treaties is expressed in Article 31 of the VCLT.[68] In practice, the WTO adjudicators have repetitively referred to sustainable development as a basis for the interpretation of WTO rules. For example, the Appellate Body in the *US — Shrimp* case referred to sustainable

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[66] Lyndel V. Prott, *Argumentation in International Law*, 5(3) ARGUMENTATION 299, 301 (1991).

[67] According to the Vienna Convention on the Law of Treaties, art. 31.2, May 23, 1969, 1155 U.N.T.S. 331 [hereinafter VCLT] (the context for the purpose of the interpretation of a treaty shall comprise, in addition to the text, including its preamble and annexes).

[68] James Cameron & Kevin R. Gray, *Principles of International Law in The WTO Dispute Settlement Body*, 50(2) INT'L & COMPAR. L.Q. 248, 254 (2001).

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development in the WTO preamble that it "gives color, texture and shading to the rights and obligations of Members under the WTO Agreement"[69]. This experience can also be applied to safeguard disputes.

Thus, the compliance of safeguard measures in the renewable energy sector with the sustainable development principle is of critical importance. As an interpretative tool, sustainable development is not only necessary, but also imperative. The question is how to make the tool more effective. To avoid the principle operating in a normative vacuum, this concept can be seen as an obligation to promote sustainable development. In this sense, sustainable development lays down not an absolute but a relative obligation, known as obligations of means or of best efforts.[70] In the context of safeguard measures in the renewable energy sector, the sustainable development principle would require Members to incur obligations to do their best to achieve environmental goals when resorting to safeguard measures.

Although trade remedies may contribute to advancing environmental protection,[71] trade is being used because it seems to be the least bad tool available to pressure other countries,[72] whereas the environment is the common concern of humankind. Accordingly, the disputes on safeguards in the renewable energy sector demonstrate that the WTO is not well equipped to regulate such trade pressure, let alone its negative impact on the environment. Member governments enjoy wide margins of discretion for the use of safeguards. On November 13, 2023, the US Court of Appeals for the Federal Circuit upheld the President's expansion of solar safeguard duties, permitting the President to modify safeguard measures in a trade-restricting manner.[73] Moreover, compared with compliance with trade rules, the obligation to promote sustainable development only requires best efforts. It remains to be seen how this obligation is interpreted and applied in balancing conflicting interests of trade and the environment. Given that "the WTO text on safeguard measures is anything but satisfactory"[74], in a situation where there is a need for environmental protection, recourse to the sustainable development principle is a necessary step to further limit the use of safeguards in the renewable energy sector. It is acknowledged that the sustainable development principle will play an important role in the

[69] Appellate Body Report, *United States — Import Prohibition of Certain Shrimp and Shrimp Products*, ¶ 155, WTO Doc. WT/DS58/AB/R (adopted Nov. 6, 1998).
[70] Virginie Barral, *Sustainable Development in International Law: Nature and Operation of an Evolutive Legal Norm*, 23(2) EUR. J. INT'L L. 377, 377 (2012).
[71] VAN VAERENBERGH, *supra* note 54, at 210.
[72] Robert Z. Lawrence, *How to Save the WTO with More Flexible Trading Rules*, PETERSON INST. FOR INT'L ECON. 1 (2022), https://www.piie.com/sites/default/files/2022-12/pb22-15.pdf.
[73] Solar Energy Indus. Ass'n v. U.S., No. 22-1392, at 4 (Fed. Cir. Dec. 13, 2023).
[74] Alan O. Sykes, *The Persistent Puzzles of Safeguards: Lessons from the Steel Dispute*, 7(3) J. INT'L ECON. L. 523, 538 (2004).

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interpretation and application of safeguard rules with the concerns of environmental protection.

In conclusion, it is important to not only analyze how to take advantage of the flexibility of WTO safeguard rules but also reflect on the limitations of the flexibility of these measures based on the effectiveness of trade remedies. Furthermore, given that safeguard measures could serve as a tool against green industrial policies, the scope of safeguard measures may be expanded to address import surges related to environmental considerations, such as environmental protection and climate change. To achieve this goal, a balanced approach is needed. It is a balance not only between trade and the environment but also between rights and obligations.

B. Outside the WTO: Redesigning Trade Agreements with the Supportiveness of International Environmental Law

Given that sustainable development and environmental protection are fundamental objectives of the WTO, the use of safeguards in the renewable sector is controversial even if it complies with the WTO safeguards rules. The regulation of these measures may go beyond the scope of the WTO and trigger the application of international environmental agreements. Prompting environmental sustainability requires renewable energy development around the world. In this regard, addressing trade-related renewable energy issues requires international cooperation in both the trade and environmental dimensions.

However, due to the deficiency of the WTO system and the fragmentation of international law, while the WTO and international environmental agreements address specific issues, regulatory overlaps exist. In general, these two normative systems can be mutually supportive since the attainment of their goals produces reciprocal benefits.[75] However, the normative conflict also needs to be harmonized. "[T]extual interpretation is not and cannot be a remedy for all problems related to normative conflicts between WTO rules and norms of 'out-side' law."[76] Sustainable development provides a chance to discuss the interface between WTO rules and international environmental agreements. The absence of environmental rules in the WTO regime raises questions as to how and to what extent other players can participate in balancing the clash between trade remedy and environmental goals.

1. The Possibility of Referring to Multilateral Environmental Agreements (MEAs) in WTO Safeguard Disputes — To reconcile the two

[75] Miguel A. Carranza, *MEAs with Trade Measures and the WTO: Aiming Toward Sustainable Development?*, 15(1)-(2) BUFF. ENV'T. L.J. 43, 44 (2007-2008).

[76] CHRISTINA VOIGT, SUSTAINABLE DEVELOPMENT AS A PRINCIPLE OF INTERNATIONAL LAW RESOLVING CONFLICTS BETWEEN CLIMATE MEASURES AND WTO LAW 272 (2009).

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objectives of trade liberalization and environmental protection, the interrelationship between the WTO and MEAs is critically important for members to coordinate their trade and environmental commitments. WTO Members are legally bound to comply with WTO rules. At the same time, most WTO Members are also members of MEAs. They should perform these MEAs in good faith.[77] Currently, there are over 250 MEAs dealing with various environmental issues that are in force. Approximately 20 of these include provisions that can affect trade.[78] Certain trade measures can be taken under the MEAs and WTO rules. The Committee on Trade and the Environment (hereinafter "CTE"), affiliated with the WTO, has identified four types of trade measures related to MEAs[79]:

> (1) Trade measures explicitly provided for and mandatory under MEAs;
> (2) Trade measures not explicitly provided for nor mandatory under the MEA itself but consequential of the "*obligation de résultat* (obligation to achieve a specific result)" of the MEA;
> (3) Trade measures not identified in the MEA which has only an "*obligation de résultat*" but that Parties could decide to implement in order to comply with their obligations;
> (4) Trade measures not required in the MEA, but which Parties can decide to implement if the MEA contains a general provision stating that parties can adopt stringent measures in accordance with international law.

Safeguard measures, however, do not make direct reference to MEAs or dictate that Members take any action to achieve environmental goals. The use of safeguard measures in the renewable energy sector inevitably has negative implications for environmental protection and climate change mitigation, which might fall within the scope of MEAs. Given that there is no hierarchy between norms of international law,[80] such as general principles of law and customary law, some MEAs binding on WTO Members, might be applicable laws to WTO disputes. In doing so, it would restrain WTO Members from ignoring their obligations acquired in other

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[77] *See* VCLT art. 26 (Every treaty in force is binding upon the parties to it and must be performed by them in good faith).

[78] *The Doha Mandate on Multilateral Environmental Agreements*, WTO, https://www.wto.org/english/tratop_e/envir_e/envir_neg_mea_e.htm (last visited July 4, 2023).

[79] Comm. on Trade & Env't Special Session, *Multilateral Environmental Agreements (MEAs): Implementation of the Doha Development Agenda* ¶ 25, WTO Doc. TN/TE/W/1 (Mar. 21, 2002).

[80] *See* Dinah Shelton, *Normative Hierarchy in International Law*, 100(2) AM. J. INT'L L., 291, 291 (2006); *see also* JOOST PAUWELYN, CONFLICT OF NORMS IN PUBLIC INTERNATIONAL LAW: HOW WTO LAW RELATES TO OTHER RULES OF INTERNATIONAL LAW 95-96 (2003) (In terms of hierarchy, it does not in principle matter, for example, where or in what context or international organisation a norm has been created (be it the WTO or WIPO or under an MEA).

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international forums.[81]

Nevertheless, MEAs are not WTO-covered agreements. MEAs should not be automatically understood as imposing legally binding obligations on WTO Members, but could be used as sources of factual information.[82] To clarify how to refer to MEAs in WTO safeguard disputes related to renewable energy, interpretation remains a critical step. Although MEAs cannot be interpreted as imposing rights or obligations for WTO Members, they could be used as sources of factual information for reference to fill the gaps between the two international agreements, in which both the objective of trade remedy and environmental protection can be achieved.

2. Inclusion of Sustainable Development and Environmental Provisions in Free Trade Agreements (hereinafter "FTAs") — With respect to sustainable development and MEAs, environmental issues are increasingly regulated in FTAs. Whereas the WTO lacks the mandate over environmental issues and the adoption of environmental disciplines falls outside its competence, FTAs have become an important platform to deal with environmental issues and promote environmental protection globally. FTAs appear to have been influenced by recent WTO debates on sustainable development, including negotiations and dispute settlement decisions, as parties learn from and are interactionally shaped by their participation in the WTO.[83] In parallel with the WTO, FTAs play a key role in facilitating international regulation of environmental issues and improving parties' compliance with their binding commitments under the MEAs and international environmental standards.

As there is no common objective or structure for FTAs, the scope of sustainable development and environmental provisions in FTAs vary significantly. The extent to which environmental issues are integrated into FTAs depends primarily on the desire of the parties to the agreement to do so but is also related to the nature and scope of the agreement.[84] An explicit commitment to promote sustainable development can be found in the preambles of some FTAs. A well-known example is the North America Free Trade Agreement (hereinafter "NAFTA"), which includes legally binding environmental provisions.[85] Additionally, recent FTAs negotiated by the EU systematically include provisions on trade and sustainable development,

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[81] PAUWELYN, *supra* note 80, at 38.

[82] Henrik Horn & Petros C. Mavroidis, *Multilateral Environmental Agreements in the WTO: Silence Speaks Volumes*, 10(1) INT'L J. ECON. THEORY 147, 147 (2014).

[83] Marie-Claire Cordonier Segger, *Sustainable Development in Regional Trade Agreements*, *in* REGIONAL TRADE AGREEMENTS AND THE WTO LEGAL SYSTEM 337, 337 (Lorand Bartels, Federico Ortino eds., 2006).

[84] *See* Joanna Langille, *Neither Constitution nor Contract: Understanding the WTO by Examining the Legal Limits on Contracting Out Through Regional Trade Agreements*, 86 N.Y.U. L. REV. 1482, 1489-92 (2011).

[85] *See* North American Free Trade Agreement, pmbl., Dec. 17, 1992, 32 I.L.M. 289.

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such as EU FTAs with Singapore, South Korea, and Vietnam. For the EU, Trade and Sustainable Development Chapters are currently the most important policy tools to balance trade openness with environmental objectives.[86] In June 2022, the European Commission published the Communication "The power of trade partnerships: together for green and just economic growth" to enhance the contribution of FTAs to promoting environmental protection worldwide.[87]

Therefore, apart from the WTO multilateral trading system, different sustainable development and environmental provisions and instruments are being developed in the regional context of FTAs. As far as safeguards are concerned, FTA parties also have discretion in applying safeguard measures to intra-FTA trade. FTA parties are entitled to incorporate their own safeguard rights and obligations for intra-FTA trade into bilateral treaties, provided that they do so in a manner that does not abridge the rights of third parties.[88] At a time when parties seek a remedy for safeguards, sustainable development and environmental provisions could be used to interpret the safeguard rules and limit the use of safeguard measures. In this situation, FTAs with a sustainable development objective constrain the use of safeguards in the renewable sector.

V. CONCLUSION

At a time of global warming, to facilitate energy transition and climate change mitigation, the use of safeguards in the renewable energy sector should be limited. "Sustainable development should be seen not only as a component of the internal WTO framework but also as a feature of its role as a public institution."[89] However, with a proliferation of safeguards in the renewable energy sector, the WTO is in a dilemma of legality and legitimacy to make a balance between respecting a Member's right to use safeguards as a legal defense and preventing such measures from being abused to undermine legitimate environmental sustainability interests.

On the one hand, the WTO safeguard mechanism provides necessary flexibility on a nondiscriminatory basis for trade remedy. On the other hand,

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[86] Stefanie Schacherer & Tensin Studer, *Trade and Sustainable Development Chapters in EU FTAs: Adapting Enforcement Methods to the Purpose(s)?*, NUS CTR. FOR INT'L L. BLOG, https://cil.nus.edu.sg/blogs/trade-and-sustainable-development-chapters-in-eu-ftas-adapting-enforcement-methods-to-the-purposes-by-stefanie-schacherer-and-tensin-studer/ (last visited Aug. 19, 2024).

[87] *The Power of Trade Partnerships: Together for Green and Just Economic Growth*, EUR. COMM'N (June 2022), https://www.eeas.europa.eu/sites/default/files/documents/Factsheet%20on%20the%20Review.pdf (last visited Aug. 19, 2024).

[88] Won-Mog Choi, *FTAs and Safeguard Norms: Their Variation and Compatibility*, 6(1) ASIAN J. WTO & INT'L HEALTH L. & POL'Y 81, 91 (2011).

[89] Emily Barrett Lydgate, *Sustainable Development in the WTO: From Mutual Supportiveness to Balancing*, 11(4) WORLD TRADE REV. 621, 633 (2012).

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as an exceptional remedy, the flexibility of safeguards should be limited only to the extent necessary for trade remedies. Therefore, the dilemma is that too much flexibility may lead to the abuse of such measures and departure from trade remedies. Moreover, against other Members' green industrial policies, the use of safeguards may have negative implications for environmental protection and sustainable development.

In the end, the use of safeguard measures in the renewable energy sector should not only support trade remedies but also contribute to sustainable development goals. If we are to find a way forward that allows trade remedy and sustainable development objectives to coexist in the application of safeguards on renewable energy products, there is a need for common efforts inside and outside the WTO. Inside the WTO, the flexibility of safeguards should be limited through a balanced approach and the sustainable development principle should be taken into consideration through the interpretation and application of safeguard rules. Outside the WTO, even for the protection of domestic renewable energy industries, safeguard measures cannot be applied against the objective of sustainable development.

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